FY 96 WORK PLAN
MONITORING, RESEARCH, AND GENERAL RESTORATION PROJECTS
DESCRIPTION OF PROJECTS AND TRUSTEE COUNCIL ACTION

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Acronyms

ABR	ABR, Inc., Environmental Research and Services
ANHSC	Alaska Native Harbor Seal Commission
Alutiiq HF	Alutiiq Heritage Foundation
Chugach OSIR	Chugach Oil Spill Impacted Region Communities Consortium
Chugach HF	Chugach Heritage Foundation
Chugach RRC	Chugach Regional Resource Commission
Ck Inl Fish DC	Cook Inlet Fisheries Development Corp.
MBC	MBC Applied Environmental Sciences
NRC	Natural Resources Consultants, Inc.
OSU	Oregon State University
PES	Petroleum Environmental Services, Inc.
PWS Econ DC	Prince William Sound Economic Development Corporation
PWSSC	Prince William Sound Science Center
RCAC	Regional Citizens' Advisory Council
TXAM	Texas A & M University
UBC	University of British Columbia
UM	University of Montana
UW/UCD/SFU	Univ. of Washington/Univ. of California, Davis/Simon Fraser Univ.

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Pink Salmon Projects				$3,597.4	$3,644.2	$3,242.3	$3,325.3	$2,558.8	$2,056.8	$11,183.2		*$1,284.6*	*$1,957.7*
PAG Recommendation: The pink salmon cluster budget appears high and should be examined in an effort to reduce costs. The PAG supports the Executive Director's efforts to bring experts together to examine the program, and suggests that knowledgeable PAG members be invited to participate.													
96076	Effects of Oiled Incubation Substrate on Straying and Survival of Wild Pink Salmon	NOAA	NOAA	$393.8	$393.8	$393.8	$715.0	$525.0	$260.0	$1,893.8	2nd. yr. 5yr. project	*$107.7*	*$286.1*

Abstract

This project examines the effects of oil exposure during embryonic development on straying, marine survival, and gamete viability of pink salmon. Controlled experiments relating oil exposure to pink salmon straying will determine the role of oil and other factors on straying so that field studies of straying in PWS after the spill can be interpreted, and so that the significance of straying on management and restoration strategies can be evaluated.

Chief Scientist's Comments

This is a technically excellent proposal that will document the extent of straying of pink salmon in Southeastern Alaska due to exposure to oil. This study could be a crucial part of the overall pink salmon damage if 95191B establishes heritable genetic damage from oil exposure. However, genetic damage has not been established, and there appear to be better methods for considering straying with respect to management strategies. Since this project is being initiated in FY 95, it should be evaluated following the return of the adults in 1996 to see if there is sufficient reason to continue.

Trustee Council Action

Defer pending further review of all pink salmon proposals address genetics/straying/stock idenfitication questions (fund interim). If funded, evaluate degree of straying after FY 96 returns to decide whether the project should close-out or continue. This project could establish that increased straying is an effect of oil exposure, which will aid interpretation of EVOS damage assessment results. Potential for future management applications not as high as for other pink salmon projects.

96093A	Restoration of PWS Pink Salmon by Diversion of Harvest Effort: Quantitative Genetic Assessment of Early-Returning Pink Salmon Broodstock	ADFG	Smoker/UAF	$111.9	$111.9	$111.9	$198.4	$211.7	$171.9	$693.9	1st yr. 5yr. project		*$111.9*

Abstract

Development of early-returning broodstock at hatcheries might beneficially reduce fishing on injured stocks. However, a risk is that early stocks might interbreed wih local salmon and hurt their fitness. Risk might be reduced by stock selection or broodstock management. This research uses quantitative genetics to assess 1) genetics of run timing in donors (predicts effectiveness of stock selection and broodstock management) and 2) fitness loss from interbreeding (exposes loss by laboratory breeding experiment).

Chief Scientist's Comments

Rated more highly than 96076, as the latter does not answer questions fully. This is a technically excellent and feasible proposal that will measure the strength of the genetic basis for straying in discrete pink salmon populations and whether out-breeding depression could result from hybridization of early and late-run pink salmon. Investigators are among the best in the world. The project will eventually contribute greatly to management of pink salmon stocks.

Trustee Council Action

Defer pending further review of all pink salmon proposals address genetics/straying/stock identification questions. If funded, fund fo pink salmon life-cycles (4 years). Determine future funding then. This project will estimate the genetic variability of run timing in pink salmon. In combination with 96093B-BAA, the two projects will determine mechanisms by which pink salmon at different spawning localities inte act genetically. This information is essential to determine whether management strategies should address a single or multiple stocks and whether it is possible to develop early-run hatchery stock, the harvest of which will not compete with depressed wild stocks.

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96093B	Restoration of PWS Pink Salmon by Diversion of Harvest Effort: Population Genetic Assessment of Gene Flow from Early Return Stock	ADFG	Smoker/UAF	$121.0	$121.0	$121.0	$238.0	$228.1	$134.2	$721.3	1st yr. 5 yr. project		*$121.0*

Abstract

Development of early-returning broodstock at hatcheries might beneficially reduce fishing on injured stocks. However, a risk is that early stock fish might stray and interbreed with local salmon and reduce their fitness. The risk can be estimated by measuring gene flow experimentally. Potential early run pink salmon will be tagged with a natural gene marker and planted in a local stream, simulating straying. The effect will then be directly estimated over generations by measuring the genetic tag in the test stream and its gene flow to others.

Chief Scientist's Comments

This is a technically superior proposal that will answer basic questions about gene flow among separate streams in Prince William Sound. This will establish whether there are only a few or many stocks in Prince William Sound. These are very significant and basic questions that will influence the nature and cost of future pink salmon management.

Trustee Council Action

Defer pending further review of all pink salmon proposals addressing genetics/straying/stock idenfitication questions. If funded, fund for life-cycles (4 years). Determine future funding then. This project will estimate the genetic effects of "straying" in pink salmon. In combination with 96093A-BAA, will determine mechanisms by which pink salmon at different spawning localities interact genetically. This information is essential to determine whether management strategies should address a single or multiple stocks and whether it is possible to develop early-run hatchery stock, the harvest of which will not compete with depressed wild stocks.

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96093C	Restoration of Prince William Sound Pink Salmon by Diversion of Harvest Effort	ADFG	PWSAC	$647.0	$727.4	$727.4	$933.9	$860.8	$1,271.9	$3,794.0	1st yr. 7 yr. project		*$727.4*

Abstract

Pink salmon egg mortality attributed to oiling of anadromous steams has contributed to a reduction in adult pink salmon returns. Natural populations of pink salmon are harvested with large numbers of hatchery pink salmon in mixed stock fisheries, which may limit escapement to damaged streams and thereby delay recovery. This project will evaluate the feasibility of changes in hatchery production to reduce exploitation of injured wild stocks. Specific projects will focus on changing the location and timing of hatchery returns in western PWS.

Chief Scientist's Comments

This project is an enormous scientific effort, and in combination with 96093A and B, would establish a program leading to the diversion of harvest effort from injured wild stocks. However, the project description does not do an adequate job of tying together all of the elements needed to implement such a program, nor does it sufficently explain the risks involved, which are many. Previous guidance from the Trustee Council has emphasized remote releases rather than changes in run timing. This proposal needs further evaluation in the context of the fall review of pink salmon genetics, straying, and stock identificaton proposals.

Trustee Council Action

Defer pending further review of all pink salmon proposals addressing genetics/straying/stock identification question.

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96139A1	Salmon Instream Habitat and Stock Restoration - Little Waterfall Barrier Bypass Improvement	ADFG	ADFG	$55.0	$55.0	$55.0	$35.0	$15.0	$55.0	$160.0	2nd yr. 4 yr. project	*$55.0*	

Abstract

This proposal will provide for continuation of Project 95139A1 to complete the barrier bypass improvement at Little Waterfall Creek. It will evaluate whether the improvements are successful once construction is complete. The project will increase spawning habitat use by pink and coho salmon and thus will increase salmon production in ensuing years.

Chief Scientist's Comments

This proposal is technically sound and its implementation will likely enhance pink salmon production.

Trustee Council Action

Fund. Project is intended to increase available spawning habitat and thus provide additional pink and coho salmon for harvest as a replacement for salmon lost in EVOS.

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96139A2	Spawning Channel Construction Project Port Dick Creek, Lower Cook Inlet	ADFG	ADFG	$223.1	$230.5	$230.5	$37.0	$23.2	$30.0	$320.7	1st yr. 5 yr. project	*$230.5*	

Abstract

The proposed Port Dick Pink Salmon Spawning Channel would restore wild pink and chum salmon stocks. The proposed project would increase the spawning habitat available in Port Dick Creek by restoring formerly used tributaries by excavating down to stable water sources.

Chief Scientist's Comments

Implementation of this proposal will likely enhance pink salmon production, and contains plans to monitor performance of the modified channel. It had been previously approved in 1995.

Trustee Council Action

Fund. Project is intended to increase available spawning habitat and thus provide additional pink and chum salmon for harvest as a replacement for salmon lost in the oil spill.

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96139C1	Montague Riparian Rehabilitation Monitoring Program	USFS	USFS	$43.1	$9.7	$9.7	$0.0	$0.0	$0.0	$9.7	3rd yr. 3 yr. project	*$9.7*	

Abstract

This project is a continuation of 94139 and 95139C. In FY 94, funding was granted to construct 25 to 30 structures in streams flowing through clearcut areas on Montague Island. These structures were designed to improve fish spawning and rearing habitat, prevent erosion, and help restore the natural flows and stream features that existed prior to logging. The 1994 work also included the improvement of 20 acres of riparian vegetation. This project is to continue evaluation of structures, repair any damage that may have occurred and assess changes in the aquatic habitat, stream channels, and substrates. The riparian vegetation work will also be evaluated.

Chief Scientist's Comments

This proposal is for the third year of a project that improves riparian habitat on Montague Island. The proposal is for monitoring and evaluation of actions taken in 1994 and 1995, which is appropriate.

Trustee Council Action

Fund. This project is designed to monitor results of a previous EVOS project.

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96139C2	Salmon Instream Habitat and Stock Restoration - Lowe River and Valdez Arm Drainages	ADFG	ADFG	$174.6	$174.6	$0.0				$0.0			

Abstract

This project would provide an in-depth evaluation of in-stream habitat restoration possibilities in the Lowe River and Valdez Arm drainages. It continues a project halted when concerns were raised during review of an environmental assessment to construct habitat improvements in the Lowe River for chum and pink salmon.

Chief Scientist's Comments

There are no clearly identified methods in the proposal for estimating the enhanced production of fish in the Lowe River. Therefore, it was not possible to evaluate the risks and benefits of the project.

Trustee Council Action

Project withdrawn by agency.

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96139D	Supplemental Monitoring for the Proposed Spawning Channel Construction Project, Port Dick Creek, Lower Cook Inlet	ADFG	Coble Geotech.	$9.2	$9.2	$0.0				$0.0			

Abstract

A separate project (96139A2) to construct the proposed Port Dick Pink and Chum Salmon Spawning Channel would restore the wild pink and chum salmon stocks to pre-spill levels. This project would provide hydrologic monitoring for that project.

Chief Scientist's Comments

Reviewed jointly with 96139A2. Same recommendation.

Trustee Council Action

Do not fund as separate project. Activity funded as part of 96139C1.

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96179	Relationships Between Stream Habitat and Stream Classification Within Prince William Sound	USFS	USFS	$218.1	$218.1	$0.0				$0.0			

Abstract

Channel types represent similar hydrological and geological reaches of stream. They should also be relatively good descriptions of what is present for in-stream fish habitat. Channel type interpretations should provide a quantitatively replicable measure for presence of in-stream spawning and rearing habitat. This project will further the understanding of the relationships between habitat and production of juvenile salmonids within PWS.

Chief Scientist's Comments

Although this is a solid proposal to continue developing a stream classification system, the proposal is not justified in the context of the oil spill program.

Trustee Council Action

Do not fund.

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96186	Coded Wire Tag Recoveries From Pink Salmon in Prince William Sound	ADFG	ADFG	$260.5	$254.9	$254.9	$260.5	$260.5	$85.0	$860.9	7th yr. 10yr. project	*$254.9*	

Abstract

This project funds recovery of coded-wire tags in PWS pink salmon. The recovered tags are used to help ADFG manage the commercial fishery to protect injured stocks. The project is part of a program to transition to a more precise in-season tool, otolith marking, with a permanent funding source other than the Trustee Council. (This project was formerly numbered 95320B.)

Chief Scientist's Comments

This project is necessary to support the transition to the otolith thermal mass marking. This project should be discontinued only after feasibility of TMM is demonstrated.

Trustee Council Action

Fund. Future years' funding, as recommended, includes two years of overlap with Otolith Thermal Marking Project (96188).The project provides information that allows managers to vary the timing and location of commercial harvest to protect injured wild stocks. This is especially important for stocks in the hard-hit Southwest District in PWS and would enable continued fishing in this area.

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96188	Otolith Thermal Mass Marking of Hatchery Reared Pink Salmon in Prince William Sound	ADFG	ADFG	$95.2	$93.2	$93.2	$100.5	$100.5	$48.8	$343.0	2nd yr. 6 yr. project	*$93.2*	

Abstract

This project will develop otolith mass marking as an in-season stock separation tool for pink salmon in PWS. In-season stock composition data is used by fishery managers to protect damaged wild pink salmon stocks from overharvest in mixed-stock fisheries. Coded-wire tags are presently used for this purpose in the Sound. Transitioning to otolith marking will reduce costs and increase precision. (This project was formerly numbered 95320C.)

Chief Scientist's Comments

This is the continuation of a previously approved program. It is innovative, cost effective, and probably one of the most effective steps the Trustees can support to improve pink salmon management.

Trustee Council Action

Fund. Otolith marking is a more accurate and less expensive technology for providing the information now obtained through coded wire tags. Future years' funding, as recommended, includes two years of overlap with Coded Wire Tag (Project 96186). Funding for application of this technique will make a transition to non-Trustee sources by FY 99 (only closeout funds proposed in '99).

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96190	Construction of a Linkage Map for the Pink Salmon Genome	ADFG	Allendorf/UM	$240.0	$240.0	$240.0	$250.0			$490.0	1st yr. 5yr. project		*$240.0*

Abstract

Proposal would construct a detailed genetic linkage map for pink salmon by analyzing the genetic transmission of several hundred DNA polymorphisms. The ability to genetically map the location of oil-induced lesions will allow the thorough identification, description, and understanding of oil induced genetic damage. This research will also aid other pink salmon studies including estimation of straying rates, description of stock structure, and testing if marine survival has a genetic basis.

Chief Scientist's Comments

This project is very challenging and potentially worthwhile for pink salmon management. Implementation of this project might await the outcome of the laboratory oil exposure experiments (95191A & B). It should be considered along with other related proposals in the Fall review.

Trustee Council Action

Defer pending further review of all pink salmon proposals addressing genetics/straying/stock idenfitication questions. Tentatively consider not funding at this time, pending results of 95191A & B.

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96191A	Oil-Related Embryo Mortalities in PWS Pink Salmon Populations	ADFG	ADFG	$474.6	$474.6	$474.6	$407.0	$246.0	$0.0	$1,127.6	5th yr. 7 yr. project	*$389.5*	*$85.1*

Abstract

Elevated embryo motalities were detected in populations of pink salmon inhabiting oiled streams following the oil spill. The purpose of this project is to continue to monitor the recovery of pink salmon embryos in the field, provide laboratory verification of the field results, and verify and identify the occurrence of genetic damages. Results of these studies may provide the first evidence of heritable injury in fish exposed to chronic or acute sources of oil pollution.

Chief Scientist's Comments

The assessment of embryo survival in the field is worthwhile to verify the 1994 result that no survival difference exists between oiled and unoiled streams for even-year pink salmon. However, the search for microlesions in the genome of injured pink salmon, through employing a variety of the latest genetic techniques, may not be able to detect these very rare events in the many possible locations for such mutations. The molecular genetics should not go forward in FY 96 until the results from FY 95 have been reviewed in the fall. If the adults from the 1994 brood year that were exposed as eggs do not produce a f2 generation, then only closeout funding should be provided.

Trustee Council Action

Fund ongoing component of project. Defer decision on funding molecular genetics component of project pending further review of all pink salmon proposals addressing genetics/straying/stock idenfitication questions.This project monitors potential on-going injury to and recovery of pink salmon and explores the hypothesis that oil spill injury is being passed on genetically.

96191B	Injury to Salmon Eggs and Pre-emergent Fry Incubated in Oiled Gravel (Laboratory Study)	NOAA	NOAA	$169.3	$169.3	$169.3	$75.0	$88.0	$0.0	$332.3	5th yr. 7 yr. project	*$72.8*	*$96.5*

Abstract

This project will determine if oil can cause heritable damage to pink salmon reproductive capacity. This requires culturing three generations of pink salmon which provides opportunities to examine other immediate and long-term effects of incubating in oiled gravel. The project already is underway and oil exposures were completed in 1994. This FY 96 proposal focuses on incubating eggs from maturing adults in 1995 and coded-wire tagging the second generation for release in Spring 1996.

Chief Scientist's Comments

This work is absolutely essential to continue in order to resolve any remaining questions about the nature of the injury to pink salmon, the course of recovery and the persistence of injury. However, if the returning adults from the 1994 brood year that were exposed as eggs do not produce a f2 generation, then funding should be reduced appropriately.

Trustee Council Action

Defer pending further review of all pink salmon proposals addressing genetics/straying/stock identification questions (fund interim.) Tentatively consider funding contingent on review of results of FY 95 field season. Budget will be reduced if insufficient numbers of net-pen raised salmon from FY 95 survive. This is a laboratory companion project to 96191A.

96194	Pink Salmon Spawning Habitat Recovery	NOAA	NOAA	$182.5	$182.5	$182.5	$75.0	$0.0	$0.0	$257.5	1st yr. 2 yr. project		*$182.5*

Abstract

This project would examine the level of oil contamination in pink salmon streams in 1989-90 and in 1995. Analyses would allow a better assessment of the oil exposure in 1989 and 1995 and would complement the elevated salmon egg mortalities measured since 1989. This study would also synthesize information from other Trustee studies to determine the likelihood of damage from oiled stream gravels. If restoration of contaminated stream gravels were contemplated, knowing the contamination levels in 1989 and 1995 would be valuable, as would the synthesis effort of prior studies.

Chief Scientist's Comments

This is an excellent study that will likely tie actual concentrations of oil in gravel in pink salmon streams to embryo mortalities and finally illuminate the role of direct exposure to oil in potentially causing the observed multi-year effects in pink salmon embryos.

Trustee Council Action

Defer. Consider delaying project one year. Samples are in freezer and stable. Project will be more meaningful once results of 96191 are available. This project ties actual concentrations of oil as obtained from field samples in 1989 and 1990 in pink salmon streams to embryo mortalities and illuminates the role of direct exposure in potentially causing the observed multi-year effects in pink salmon embryos.

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96196	Genetic Structure of Prince William Sound Pink Salmon	ADFG	ADFG	$178.5	$178.5	$178.5	$0.0	$0.0	$0.0	$178.5	3rd yr. 3 yr. project	*$71.3*	*$107.2*

Abstract

Previous work found that wild-stock pink salmon suffered both direct lethal and sublethal injuries as a result of the oil spill. An understanding of the population structure of pink salmon in PWS is essential to assess the impact of these injuries on a population basis and to devise and implement management strategies for restoration. This project is designed to delineate the genetic structure of populations of wild pink salmon inhabiting PWS. (This project was formerly numbered 95320D.)

Chief Scientist's Comments

This is the second year of this work on the genetic stock structure of pink salmon in Prince William Sound. This is a good proposal being conducted by well-qualified geneticists. The proposed breeding experiments are justified in order to interpret the heterozygosity of certain genes used as markers.

Trustee Council Action

Fund close-out of current work. Defer new data gathering pending further review of all pink salmon proposals addressing genetics/straying/stock idenfitication questions. This project is designed to determine geographic extent of genetic differences in PWS pink salmon. In combination with 96093A and B, this information will e development of management strategies for single vs. multiple stocl

Herring Projects				$1,581.8	$1,432.2	$1,432.2	$1,154.9	$1,013.5	$1,169.2	$4,769.8		*$787.1*	*$645.1*

PAG Recommendation: Fully fund herring projects and, where possible, enhance funds (that is, fund deferred projects if technical and other questions are resolved to the Chief Scientist's satisfaction).

96074	Herring Reproductive Impairment	NOAA	NOAA	$347.7	$200.0	$200.0	$69.5	$0.0	$0.0	$269.5	3rd yr. 4 yr. project	*$200.0*	

Abstract

This study will examine long-term oil impacts on herring due to the oil spill using field and laboratory measurements. The field component will search for reproductive impacts in PWS stocks and the laboratory portion will determine if exposure of various life stages to oil causes genetic damage. This project began following the crash of populations in PWS and represents one of several projects focused on causes of the crash and prospects for recovery.

Chief Scientist's Comments

Most of the major objectives of the work have been accomplished in 1994 and 1995. The remaining work in 1996 is costly relative to what it will add to our knowledge of toxicity of oil to herring reproduction. I therefore recommend close-out funding for this project with no support for additional field or laboratory work.

Trustee Council Action

Fund close-out of the oil-exposure laboratory portion and continuation of field portion. Purpose of study is to understand possible injury to herring reproduction from oil exposure.

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96162	Investigations of Disease Factors Affecting Declines of Pacific Herring Populations in Prince William Sound, AK	ADFG	UW/UCD/SFU	$635.0	$635.0	$635.0	$510.6	$461.7	$0.0	$1,607.3	3rd yr. 5 yr. project	*$204.1*	*$430.9*

Abstract

Field and laboratory studies will focus on Viral Hemorrhagic Septicemia (VHS) and *Ichthyophonus hoferi*, a pathogenic fungus, to determine their role in the disease and mortality observed in PWS herring since 1993. Herring in PWS will be monitored three times per year for signs of disease and immune status. Specific pathogen-free herring will be used to determine the degree of mortality, blood chemical changes and pathogenicity produced by these organisms alone and in combination with exposure to stressors such as petroleum hydrocarbons, temperature and crowding. (This project was formerly numbered 95320S.)

Chief Scientist's Comments

This is an innovative and thorough approach to investigating the potential relationship between oil exposure and manifestation of disease in herring, although the time between the spill and the population crashes raises questions about cause and effect. Nevertheless, there is a plausible basis for the questions being addressed by this work. By exposing pathogen-free herring to oil and challenge by VHS virus and *Ichthyophonus* in laboratory experiments, the role of these pathogens in the population crashes will be clarified. Also, learning more about the circumstances of disease transmission may benefit herring management.

Trustee Council Action

Defer until FY 95 results are evaluated (fund interim). Project is designed to investigate potential link between oil exposure and disease and between disease and the population decline in PWS. Understa[illegible] the lack of recovery is important for restoration and resumption of herring fishery.

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96164	Pacific Herring Program Leadership	ADFG	ADFG	$49.2	$49.2	$49.2	$49.2	$49.2	$49.2	$196.8	1st yr. 4yr. project	*$49.2*	

Abstract

The purpose of this project is to enhance coordination, integration and critical review of projects that are designed to study different aspects of Pacific herring in the PWS ecosystem; to better understand the interactions of the components of the ecosystem; and to aid in the recovery of the injured resource and lost services.

Chief Scientist's Comments

As revised, this proposal provides the leadership the herring research program deserves.

Trustee Council Action

Fund. Increased leadership should increase the effectiveness of the EVOS herring program. Note that the balance of funds needed to hire a program leader should come from 96162, 96165, and 96166. It is unlikely this project will transition into normal agency management. In future years, funding will be rolled into other herring projects.

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96165	Genetic Discrimination of Prince William Sound Herring Populations	ADFG	ADFG	$105.8	$103.9	$103.9	$120.0	$97.0	$0.0	$320.9	3rd yr. 5 yr. project	*$103.9*	

Abstract

The PWS herring fishery has been in catastrophic decline since 1992. The Alaska Department of Fish and Game recovery effort includes incorporating a knowledge of genetically derived population structure into harvest management. This continuing project will delineate the structure of PWS population(s) and related North Pacific populations using both nuclear and mitochondrial DNA analyses. Tests for temporal and spatial diversity within years and temporal stability across years will be done.

Chief Scientist's Comments

This is a continuing project that will directly affect issues of importance for managing Prince William Sound herring. The investigators have performed admirably on past projects, and I recommend further support for the project in 1996.

Trustee Council Action

Fund. This project addresses basic questions about the genetic composition of PWS herring in relation to other North Pacific populations. This information is important to management. When setting harvest limits, it is important to know whether there exists one or more genetically distinct populations.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96166	Herring Natal Habitats	ADFG	ADFG	$444.1	$444.1	$444.1	$405.6	$405.6	$1,120.0	$2,375.3	3rd yr. 9 yr. project	*$229.9*	*$214.2*

Abstract

Past studies have documented damage from oil exposure in adult herring, hatching success of embryos, and levels of physical and genetic abnormalities in larvae. The PWS herring spawning population has drastically declined since 1993, and pathology studies implicated Viral Hemorrhagic Septicemia (VHS) and *Ichthyophonus* as potential sources of mortality as well as indicators of stress. The project will continue to provide estimates of spawning herring abundance and investigate the lethality of suspected pathogens and the role of environmental contaminants in disease transmission through laboratory and field studies.

Chief Scientist's Comments

Relates to SEA hypothesis and causes of decline in herring, which are fundamental to the EVOS restoration program. However, there is concern about the extent to which some activities can be considered on-going agency management. The budget is too high.

Trustee Council Action

Defer decision pending 1) review of FY 95 results in fall; 2) a review of the recovery objective for herring based on FY 95 results; 3) a review of the project budget; and 4) agreement on plan for transition to normal agency management. In addition, there is a question whether herring spawn deposition surveys are a cost-effective management tool (ju le herring survey may be more effective). Fund interim. The goal of project is to improve estimation of spawning biomass, in order to establish harvest levels and guidelines that allow natural restoration to occur and that will sustain a healthy fishery.

Sound Ecosystem Assessment (SEA)				$4,783.6	$5,154.8	$4,525.7	$3,600.0	$2,600.0		$10,725.7		*$4,525.7*	

PAG Recommendation: Fully fund projects in this cluster, as recommended by the Executive Director.

96320	Sound Ecosystem Assessment (SEA)	ADFG	Cooney, et al				$3,600.0	$2,600.0		$6,200.0	3rd yr. 5 yr. project		

Abstract

SEA is a multi-component, interdisciplinary study of factors controlling the production of pink salmon and Pacific herring in PWS. The study investigates the early life stages of these species. Hypotheses about how the physical environment (temperature, salinity, circulation, and water structure) interacts with fish and plankton populations in the region are used to focus and guide the field sampling and modelling studies.

Chief Scientist's Comments

Project helps provide the larger context of ecosystem structure under which restoration must be considered to be effective, and is likely to contribute valuable information for the management of salmon and herring in PWS. A review workshop should be held in January 1996, at which we would expect a substantial review of the first 2 years' work.

Trustee Council Action

Fund. Project 96320 recommendation of $4525.7 reflects funding for continued work in FY 96. Also, an additional amount for PWSSC report writing in FY 97 ($589.1) is recommended as result of tra n to the NOAA-BAA process. Authorization for these report writin ds is needed to enter into NOAA-BAA contracts. Future program effort and funding will be considered after mid-January SEA program review session. Projected cost in FY 97 is $3600.0; FY 98 is $2600.0.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96320E	Salmon and Herring Predation	ADFG	ADFG	$670.5	$637.7	$637.7				$637.7	3rd yr. 5 yr. project	*$637.7*	

Abstract

This project would determine the extent to which variations in predation on juvenile pink salmon affect survival and describe mechanisms that cause variation in predation. This would include the identification of fish predators (distribution, abundance, species, and size composition) along the juvenile salmon migratory pathway. The project will also collect samples for a variety of the other SEA efforts.

Chief Scientist's Comments

See 96320.

Trustee Council Action

See 96320.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96320G	Phytoplankton and Nutrients	ADFG	McRoy, UAF	$162.2	$162.2	$162.2				$162.2	3rd yr. 5 yr. project	*$162.2*	

Abstract

This project would focus on primary production and provide nutrient and phytoplankton data to help evaluate the influence of phytoplankton dynamics on the PWS food web. The project would examine variations in phytoplankton production in relation to zooplankton production and oceanographic conditions.

Chief Scientist's Comments

See 96320.

Trustee Council Action

See 96320.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96320H	Zooplankton in the PWS Ecosystem	ADFG	Cooney, UAF	$329.9	$323.6	$323.6				$323.6	3rd yr. 5 yr. project	*$323.6*	

Abstract

This project would continue to investigate the annual zooplankton bloom and its relationship to fish predator abundance. The project would sample and monitor the distribution and composition of PWS macrozooplankton populations in collaboration with the physical oceanography component of SEA.

Chief Scientist's Comments

See 96320.

Trustee Council Action

See 96320.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96320I	Isotope Tracers - Food Webs of Fish	NOAA	PWSSC	$194.9	$270.3	$195.8				$195.8	3rd yr. 5 yr. project	*$195.8*	

Abstract

This project would analyze tissue samples and use shifts in stable isotope ratios that occur with trophic level and food source to describe food sources and predation relationships among species in PWS.

Chief Scientist's Comments

See 96320.

Trustee Council Action

See 96320. (Note: An additional $74.5 is recommended to fund report writing costs in FY 97 as a result of transition to the NOAA-BAA contracting process.)

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96320J	Information Systems and Model Development	NOAA	PWSSC	$489.9	$655.9	$482.7				$482.7	3rd yr. 5 yr. project	*$482.7*	

Abstract

This project would continue work initiated in FY 94 as part of the PWS System Investigation (Project 94320). This particular sub-project would provide an information system appropriate for the PWS System Investigation effort and develop the modeling resources needed to achieve the program's objectives. This sub-project provides for overall data management and technical support to other PWS System Investigation efforts through field data communications; descriptive modeling; numerical modeling; support with sampling technologies; and providing for on-line analysis and visualization tools to provide the means by which various data can be collected, used and understood.

Chief Scientist's Comments

See 96320.

Trustee Council Action

See 96320. (Note: An additional $173.2 is recommended to fund report writing costs in FY 97 as a result of the transition to the NOAA-BAA contracting process.)

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96320K	PWSAC: Experimental Fry Release	ADFG	PWSAC	$55.1	$61.4	$61.4				$61.4	3rd yr. 5 yr. project	*$61.4*	

Abstract

This project would support the rearing of salmon fry for release , part of an effort to investigate the possible influence of fry size as a determinant of survival during early marine residence as part of the SEA study effort.

Chief Scientist's Comments

See 96320.

Trustee Council Action

See 96320.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96320M	Physical Oceanography in PWS	NOAA	Salmon, PWSSC	$506.9	$645.8	$499.4				$499.4	3rd yr. 5 yr. project	*$499.4*	

Abstract

This project would investigate the physical oceanographic structure of PWS including the space/time variability of atmospheric and oceanic processes within PWS, investigate relationships between atmospheric forcing (wind, storms, long term temperature changes) and wind and buoyancy-driven currents; determine how these relationships act to retain/disperse food resources for ecologically important species within PWS; and investigate large and fine scale oceanographic structures and major climatic cycles and events.

Chief Scientist's Comments

See 96320.

Trustee Council Action

See 96320. (Note: An additional $146.4 is recommended to fund report writing costs in FY 97 as a result of the transition to the NOAA-BAA contracting process.)

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96320N	Nekton/Plankton Acoustics	NOAA	PWSSC	$485.2	$682.6	$487.6				$487.6	3rd yr. 5 yr. project	*$487.6*	

Abstract

This project would describe macrozooplankton distribution and biomass in real time using hydroacoustics; describe fish predator distribution/biomass in real time using hydroacoustics; investigate hypothesis that plankton/nekton/predator populations aggregate in cyclic patterns and specific locations due to currents and bottom morphology.

Chief Scientist's Comments

See 96320.

Trustee Council Action

See 96320. (Note: An additional $195.0 is recommended to fund report writing costs in FY 97 as a result of the transition to the NOAA-BAA contracting process.)

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96320Q	Avian Predation on Herring Spawn	USFS	USFS	$35.0	$32.7	$32.7				$32.7	3rd yr. 5 yr. project	*$32.7*	

Abstract

This project would close out research to determine herring egg loss to avian predators such as glaucous-winged gulls, surf scoters, black turnstones and surfbirds.

Chief Scientist's Comments

See 96320.

Trustee Council Action

See 96320.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96320R	SEA Trophodynamic Modeling and Validation Through Remote Sensing	ADFG	Eslinger/UAF	$204.0	$202.7	$202.7				$202.7	3rd yr. 5 yr. project	*$202.7*	

Abstract

This is a new SEA project in FY 96 as a result of an internal reorganization. Some of the work performed under 95320-G and J is to be done under this project in FY 96 and beyond. This project would continue the trophodynamic modeling of phytoplankton and zooplankton begun in FY 95 and add modeling of ichthyoplankton, herring larvae in particular. It will evaluate and verify the model against field data to be collected using a variety of remote sensing and in situ sampling platforms. (Funds for this project are included in 96320.)

Chief Scientist's Comments

See 96320. This reorganization of the SEA program seems logical and effective. This work is central to development of an understanding of controls of year-to-year variation in recruitment success of fish in Prince William Sound.

Trustee Council Action

See 96320.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96320T	Juvenile Herring Growth and Habitat Partitioning	ADFG	Narcross, UAF	$1,234.6	$1,141.6	$1,141.6				$1,141.6	3rd yr. 5 yr. project	*$1,141.6*	

Abstract

This project would investigate what may be causing the failure of herring runs in PWS by investigating the dynamics of larval and juvenile herring. The proposed project, together with other investigations being undertaken as part of the SEA program would attempt to describe the relative importance of zooplankton abundance, oceanic conditions, habitat requirements, and density dependent predation in determining large fluctuations in herring abundance.

Chief Scientist's Comments

See 96320.

Trustee Council Action

See 96320.

96320U	Energetics of Herring and Pollock	ADFG	Paul, UAF	$190.3	$189.5	$189.5				$189.5	3rd yr. 5 yr. project	*$189.5*	

Abstract

Project would focus on the seasonal somatic energy cycles of two important forage fish species in the spill area--- Pacific herring and walleye pollock. The project would explore overwinter survival of juvenile herring and herring reproductive biology and provide energetic information to quantify trophic interactions (food webs) involving pollock.

Chief Scientist's Comments

See 96320.

Trustee Council Action

See 96320.

96320Y	Variation in Local Predation Rates on Hatchery-Released Fry	ADFG	PWSSC	$120.0	$40.0	$40.0				$40.0	3rd yr. 5 yr. project	*$40.0*	

Abstract

Project close out of investigation of the size, composition, behavior and duration of foraging aggregations of predators, especially birds, at fry release sites.

Chief Scientist's Comments

See 96320.

Trustee Council Action

See 96320.

96320Z1	Synthesis and Integration	ADFG	Cooney/UAF	$65.1	$68.8	$68.8				$68.8	3rd yr. 5 yr. project	*$68.8*	

Abstract

This project provides support for synthesis and integration activities associated with the application of SEA field and modelling studies to the restoration of pink salmon and Pacific herring populations in PWS.

Chief Scientist's Comments

Necessary for effective project management, although cost for administrative support seems high.

Trustee Council Action

See 96320.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96320Z2	Sound Ecosystem Assessment (SEA): Coordination & Communications	NOAA	PWSSC	$40.0	$40.0	$0.0				$0.0	3rd yr. 5 yr. project		

Abstract

The project is intended to provide coordination, logistical support, and personnel to assist the SEA scientists with coordination and incorporation of local knowledge; and to assist the Restoration Office with communication of project activities and results to communities in PWS.

Chief Scientist's Comments

The project seems less focused upon incorporating Native knowledge and more of a public relations effort for the SEA program and the Prince William Sound Science Center. The Principal Investigator is well qualified and dedicated, but the need to be addressed is best done by the Restoration Office for the entire Restoration Program.

Trustee Council Action

Do not fund. Communications are ongoing effort under other projects (96100 and 96052) and also are responsibilities of sponsoring institutions and agencies.

SEA Program -- Related Projects				$375.2	$375.2	$112.7	$85.0	$85.0	$170.0	$452.7			*$112.7*

96054	Mass-Balance Model of Trophic Fluxes in Prince William Sound	ADFG	Pauly/UBC	$105.9	$105.9	$0.0				$0.0			

Abstract

A workshop is proposed where experts would assemble the materials for a mass-balance model of trophic fluxes in PWS. Model construction would be prepared using the widely-used ECOPATH II approach. A graduate student would collate the results and prepare material for an evaluation meeting where the use of the ECOPATH II model will be considered. An educational video and interactive software for display in the Alaska Sealife Center will also be prepared.

Chief Scientist's Comments

This is an excellent proposal to construct a trophic flux model of Prince William Sound that has the potential to integrate the SEA (96320) and APEX (96163) programs. The initiation of this project would be most appropriate in FY 97. However, I recommend that the Principal Investigator for this project be invited to participate in both the SEA review workshop and the annual science meeting in January 1996.

Trustee Council Action

Do not fund in FY 96. However, project proposer will be invited to participate in the 1995 SEA review workshop and the annual restoration workshop in January 1996.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96193-BAA	Flux and Nutritional Quality of Particulate Organic Carbon: Relationship to Survival of Juvenile Pelagic Fish	ADFG	Naidu/UAF	$156.6	$156.6	$0.0				$0.0			

Abstract

Particulate organic carbon is the ultimate source of food and energy for marine organisms. Propose to test the SEA Program's (96320) river-lake hypothesis for PWS by correlating the seasonal fluxes and nutritional quality of particulate organic carbon to the time-series variations in primary production and hydrodynamic conditions, with implication on the growth and survival of juvenile pink salmon and Pacific herring. This testing will help to clarify whether the yearly fluctuation in the two fish stocks is related to natural causes, and provide a basis in decision making for either restoration or optimizing the two fish stocks.

Chief Scientist's Comments

Organic carbon undoubtedly plays an important role in the Prince William Sound ecosystem, but the results of this project would probably not measurably contribute to achieving the objectives of the present ecosystem study (i.e., SEA project 96320). More active integration with that program would strengthen this proposal.

Trustee Council Action

Do not fund. Project would not contribute sufficiently to restoration objectives to justify starting a new project.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96195	Pristane Monitoring in Mussels and Predators of Juvenile Pink Salmon & Herring	NOAA	NOAA	$112.7	$112.7	$112.7	$85.0	$85.0	$170.0	$452.7	1st yr. 5 yr. project		*$112.7*

Abstract

This project will measure pristane in predators of juvenile pink salmon and larval herring to determine the dietary dependence of these predators on alternative prey, *Neocalanus* spp. copepods. This project will also monitor pristane in mussels as an indirect index of potential year-class strength for pink salmon and herring. These results will be used to evaluate the prey-switching hypothesis of the SEA plan and identify critical marine nursery habitat in PWS.

Chief Scientist's Comments

An extremely valuable and elegant proposal with tremendous potential as an integrative tool for future monitoring of the Prince William Sound ecosystem. Among the highest-rated proposals.

Trustee Council Action

Defer. This is a technically innovative and excellent project. Collecting and measuring pristane in mussels may provide a simple measure of marine productivity, thus allowing predictions about future fisheries production and harvest levels. Evaluate in December based on availability of funds.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
Sockeye Salmon Program				$2,201.5	$2,198.0	$1,765.3	$427.0	$75.0	$150.0	$2,417.3		*$771.0*	*$994.3*
PAG Recommendation: The PAG directs staff to review sockeye projects with an eye to identifying budget reductions, and to close out management-related aspects of the sockeye cluster as expeditiously as possible.													
96048-BAA	Historical Analysis of Sockeye Salmon Growth Among Populations Affected by Overescapement in 1989	NOAA	NRC, Inc.	$86.7	$116.9	$116.9	$0.0	$0.0	$0.0	$116.9	1st yr. 1 yr. project		*$116.9*

Abstract

Overescapement of sockeye salmon in several areas of Alaska occurred in 1989 as a result of the oil spill. Overescapement appears to have reduced salmon growth, leading to reduced survival. However, few records of sockeye growth in these systems occurred before 1989. This project will use adult sockeye scales to reconstruct the growth of sockeye salmon before, during, and after the oil spill event. These data will be used to document the effects of the spill and the subsequent recovery of the sockeye stocks.

Chief Scientist's Comments

Excellent proposal. Will help synthesize existing information on sockeye salmon overescapement using an approach not used before in the program. Will supply information that won't be available from Kenai overescapement program. Will help resolve disagreements over data collected in NRDA and restoration program.

Trustee Council Action

Defer pending further review. This project would synthesize existing information on sockeye overescapement to resolve questions about the geographic extent and mechanisms of EVOS-related injury due to overescapement, and would provide information needed to design management strategies to overcome EVOS injury. If funded, NOAA should review the proposer's indirect rate during contract negotiations.

96255	Kenai River Sockeye Salmon Restoration	ADFG	ADFG	$447.9	$442.9	$442.9				$442.9	6th yr. 6 yr. project	*$239.8*	*$203.1*

Abstract

Greatly reduced fishing time in upper Cook Inlet in 1989 due to the presence of oil caused sockeye salmon spawning escapements in the Kenai River to exceed the desired amount by three times. The overescapement may have reduced survival of juvenile sockeye salmon. Careful monitoring and possible reduction of Kenai River sockeye salmon harvests may be necessary to ensure adequate escapements. The goal of this project is to restore Kenai River sockeye salmon through improved stock assessment capabilities and more accurate regulation of spawning levels.

Chief Scientist's Comments

This has been an excellent program, producing landmark results in '94 and '95. It has achieved its objectives by providing management tools for the upper Cook Inlet fishery. Closeout funds are requested for '96, but the amount seems high.

Trustee Council Action

Fund close-out of FY 95 project. Defer a decision on FY 96 and future years until December, pending a review of the 1995 Kenai/Skilak sockeye return and of the overall Kenai/Skilak sockeye program. TI project provides in-season identification of actual runs that Cook Inlet fishermen are harvesting which is used by fisheries managers to modify fishing areas and openings to protect Kenai/Skilak stocks.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96256	Columbia Lake Sockeye Salmon Stocking	USFS	USFS	$40.6	$60.8	$60.8	$0.0	$0.0	$0.0	$60.8	1st yr. 1 yr. project		*$60.8*

Abstract

Columbia Lake is a 2.8 km^2 surface area lake located in Heather Bay near the southeast terminus of the Columbia Glacier. With recession of the glacier, the lake level dropped and the outlet now flows across a moraine, restricting access to salmon. Comparative data suggest that this lake could produce return of 10,000 to 29,000 adult sockeye salmon annually. This project would gather limnological data, transplant fry and monitor the outmigration of smolt and return of adult salmon.

Chief Scientist's Comments

Uncertain if this glacial lake can sustain a sockeye run without much more extensive program than proposed.

Trustee Council Action

Defer. Revised DPD submitted but not yet reviewed. As requested, the revision combines this project with 96257 and recasts project as a feasibility study. If feasible, these projects could provide significant sockeye salmon to aid PWS subsistence, sport, and commercial fisheries.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96257	Solf Lake Sockeye Salmon Stocking	USFS	USFS	$34.3	$34.3	$0.0				$0.0			

Abstract

Solf Lake is a 0.61 km^2 surface area lake located in Herring Bay on Knight Island. This lake had a run of sockeye salmon until an earthquake in the 1930s blocked the outlet. Limnological data suggest that this lake could produce returns of 19,000 to 22,000 adult sockeye salmon, annually. This project would open the lake to migrating salmon, monitor plankton abundance, transplant fry and monitor the outmigration of smolt and return of adult salmon.

Chief Scientist's Comments

This proposed multi-year effort raises questions about mixed-stock fisheries in western Prince William Sound that need to be addressed.

Trustee Council Action

Project combined with 96256.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96258A	Sockeye Salmon Overescapement Project	ADFG	ADFG	$907.8	$858.9	$858.9	$150.0	$75.0	$150.0	$1,233.9	3rd yr. 6 yr. project	*$460.2*	*$398.7*

Abstract

This proposal provides for a close-out budget for the Kenai lakes sockeye research program with a limited continued sockeye monitoring program for the Kodiak Island lakes. If depressed adult returns from 1989 brood are observed in the Kenai River in 1995, continuation of the evaluation is proposed for the 1996 field season, which would bring the FY 96 cost to $907,800. In addition, a separate proposal to experimentally evaluate the proposed mechanism leading to reduced production of smolt from the Kenai systems by mean of an *in situ* enclosure study is integrated into these investigations.

Chief Scientist's Comments

Preliminary analysis of the 1995 return appears to confirm a weak return of the 1990 brood year, which would be consistent with an effect of overescapement in 1987 - 1989. The fry weight data and observations on vertical migration of zooplankton might also reflect on effect of overescapement. The application of the limnological work to management is unclear. The closeout costs appear high and further description of the analysis to be conductd on 1995 data is needed. I cannot recommend gathering new data except perhaps in Red and Akalura lakes on Kodiak Island.

Trustee Council Action

Fund close-out of FY 95 work on Kenai/Skilak portion; continue limited Kodiak monitoring. Defer decision on FY 96 and future years' Kenai/Skilak work until fall, pending review of 1995 sockeye return and of the overall Kenai/Skilak sockeye program. This project investigates multiple mechanisms for injuries to sockeye caused by overescapement, and also will determine the effects on smolt escapement and ultimate production of returning adults. It also monitors recovery of Kodiak runs and provides information to help restore these runs.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96258B	Sockeye Salmon Skilak Lake Enclosure Project	ADFG	ADFG	$341.1	$341.1	$0.0				$0.0			

Abstract

This proposal will be initiated if the 5-year component of the 1995 Kenai sockeye return is very low. The proposed study examines experimentally 2 major questions about limits to sockeye salmon production. First, can reduced growth rates and subsequent reduced recruitment to fall fry and overwinter survival be explained by decreased availability of zooplankton? Second, are nutrient additions effective at improving zooplankton production and associated decreases in sockeye salmon? This study is a companion to 96258A.

Chief Scientist's Comments

There may be reason to fund this in the future but I can not recommend doing this soon.

Trustee Council Action

Do not fund in FY 96. Consistent with Chief Scientist's recommendation, decision on future funding should await return of 1995-97 returns, and review of the overall Kenai/Skilak sockeye program.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96258C	Kenai River Ecosystem Restoration: Starvation-Temperature Study	DOI	DOI	$57.3	$57.3	$0.0				$0.0			

Abstract

This proposal is a companion to 96258A. It will only be initiated if the 5-year component of Kenai sockeye returns at a low level. It examines two questions: First, "Can the variability in overwintering survival of poorly conditioned fall fry be replicated in a laboratory simulation of the naturally observed conditions in Skilak and Kenai Lakes?"... Second, "Can the variability in overwintering survival be modeled with field data on length of winter and seasonal food availability?" The answers will be useful in developing restoration plans and evaluating escapement goals for Kenai sockeye.

Chief Scientist's Comments

See comment of 96258B.

Trustee Council Action

Do not fund in FY 96. Consistent with Chief Scientist's recommendation, decision on future funding should await return of 1995 - 1999 returns, and review of the overall Kenai/Skilak sockeye returns.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96259	Restoration of Coghill Lake Sockeye Salmon	ADFG	ADFG	$285.8	$285.8	$285.8	$277.0	$0.0	$0.0	$562.8	4th yr. 5 yr. project	*$71.0*	*$214.8*

Abstract

Coghill Lake has historically been a major sockeye producer for PWS. The current production is very low and could jeopardize the sustainability of this sockeye stock without restoration efforts. This project continues a program begun in 1993 to fertilize Coghill Lake to restore the run. A restored sockeye salmon run would provide an important replacement resource for sport and commercial fisheries in PWS.

Chief Scientist's Comments

This project is a replacement action for oil spill injury using lake fertilization to increase sockeye salmon production in Coghill Lake. Reviews have identified risks in the approach taken. If the fertilization program does not work, we are not likely to know why. In spite of my reservations about the project, I recommend continued funding.

Trustee Council Action

Defer pending review of FY 95 results (fund interim). Consistent with recommendation in FY 95 work plan, there must be a transition to a non-Trustee funding source after FY 97. This project is designed to restore Coghill Lake to its former position as a mainstay of the commercial/sport sockeye fishery in PWS. Although the injury to this fishery was not caused by the oil spill, this project has been conducted on a replacement basis for losses of other fishery resources.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
Cutthroat and Dolly Varden Trout Projects				$565.1	$428.4	$240.4	$227.7	$127.7	$26.4	$622.2		*$200.0*	*$40.4*
PAG Recommendation: Fully fund projects as proposed by the Executive Director, with greater emphasis, if possible (that is, fund deferred projects if approved by the Executive Director).													
96043A	Cutthroat Trout and Dolly Varden Char Population and Habitat Monitoring	USFS	USFS	$29.6	$29.6	$0.0				$0.0			

Abstract

Since 1993 a weir has been operated at Mile 18 Creek near Cordova to monitor the populations of anadromous cutthroat trout and Dolly Varden char, determine population variability, estimate survival rates, and learn more about migration patterns and habitat requirements. Continued study at the weir in 1996 and 1997 will complete the data needed for determining survival rates for several year classes and will give a good indication of the population variability.

Chief Scientist's Comments

This is a new project for Trustee Council funding that proposes to support the operation of a weir on Mile 18 Creek. While this may improve some aspects of sport fishery management at Mile 18, it is not certain how this project will aid the restoration of this species on a regional basis.

Trustee Council Action

Do not fund. Project is part of on-going agency effort.

96043B	Monitoring of Cutthroat Trout and Dolly Varden Habitat Improvement Structures	USFS	USFS	$40.4	$40.4	$40.4	$27.7	$27.7	$26.4	$122.2	3rd yr. 5 yr. project		*$40.4*

Abstract

This project provides for monitoring of habitat improvement structures and their effects on cutthroat trout and Dolly Varden populations. These structures were installed in 1995 under EVOS Restoration Project number 95043B. Additionally this proposal would provide for a project completion report of project number 95043B.

Chief Scientist's Comments

This enhancement project has addressed concerns about supplementation effects and it's technically acceptable.

Trustee Council Action

Defer for resolution of monitoring costs and schedule. This project monitors the success of a previous EVOS project.

96043C	Cutthroat Trout Habitat Improvement Structures	USFS	USFS	$100.2	$100.2	$0.0				$0.0			

Abstract

This project has the same focus as Project 94043/95043B. Its objective is to improve cutthroat trout rearing habitat in western PWS. In FY 95, the USFS will identify up to four streams with habitat enhancement opportunities. A detailed evaluation and environmental analysis would be conducted and finalized prior to the 1996 field season when implementation of the stream enhancements would take place.

Chief Scientist's Comments

Performance evaluations of previous in-stream manipulations need to be completed prior to commencing new manipulations. In addition, future proposals need to consider species interactions to ensure that manipulations do not provide unintended enhancement of other species.

Trustee Council Action

Do not fund. Reconsider after similar improvements funded under 94043/95043B have been fully evaluated.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96145	Cutthroat Trout and Dolly Varden: the Relation Among and Within Populations of Anadromous and Resident Forms	USFS	USFS	$336.7	$200.0	$200.0	$200.0	$100.0	$0.0	$500.0	1st yr. 3 yr. project	*$200.0*	

Abstract

Recovery of cutthroat trout is unknown. Restoration efforts have taken the form of instream habitat modification and stock supplementation. The usefulness of this approach in the long term is unknown. This project would determine the relation between resident and anadromous forms of these fish within the same watershed and between watersheds by examining genetic, meristic, and life-history features of each group. Results from this study will allow a long-term, comprehensive and ecologically sound restoration strategy for these fish to be developed.

Chief Scientist's Comments

This is a fundamentally excellent proposal that will determine the relationships between resident and anadromous forms of Dolly Varden and cutthroat trout. Our lack of knowledge of life history strategies is constraining our ability to identify the most effective restoration strategies for the species. This project will also help clarify damage assessment results obtained previously. Since the findings of this study have national implications, I suggest substantial cost sharing by the USFS.

Trustee Council Action

Fund. The project defines relationships among stocks and life history forms (e.g., anadromous vs. resident), refines understanding of the nature and extent of EVOS injury, and may confirm whether recovery has occurred. This same information has direct implications for management of sport fisheries in Prince William Sound and nationwide, and the USFS is providing significant support for this project.

96177A	Cutthroat Trout, Dolly Varden Char Habitat Restoration, Lake Elsner Area	USFS	USFS	$26.6	$26.6	$0.0				$0.0			

Abstract

Timber harvests in the Lake Elsner watershed, 13 miles east of Cordova, may have affected cutthroat trout and Dolly Varden char habitat. The Cordova Ranger District proposes to work with the Eyak Corporation to survey the area and determine if there are any existing or potential impacts. If problems are identified, plans for restoration projects will be developed.

Chief Scientist's Comments

I cannot recommend that the Trustee Council fund the USFS and the Eyak Corporation for restoration of damage apparently caused by the logging practices on private land.

Trustee Council Action

Do not fund.

96177B	Cutthroat Trout, Dolly Varden Char Habitat Restoration, Port Fidalgo and Port Gravina Area	USFS	USFS	$31.6	$31.6	$0.0				$0.0			

Abstract

Timber harvests in the Port Fidalgo and Port Gravina area, 20 miles northwest of Cordova, may have affected cutthroat trout and Dolly Varden char habitat. The Cordova Ranger District proposes to work with the Tatitlek Corporation to survey the area and determine if there are any existing or potential impacts. If problems are identified, plans for restoration projects will be developed.

Chief Scientist's Comments

I cannot recommend that the Trustees fund the Tatitlek Corporation and USFS to restore damages caused by logging practices on private land. Perhaps this kind of assistance can be sought through Project 95058 (Assistance to Private landowners).

Trustee Council Action

Do not fund. Desired restoration should be addressed in the ongoing negotiations for purchase of habitat protection in the Tatitlek area.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
Marine Mammal Program				$1,163.1	$1,099.5	$819.0	$687.3	$275.1	$25.0	$1,806.4		*$792.6*	*$26.4*
PAG Recommendation: Fund projects of this cluster as recommended by the Executive Director.													
96001	Recovery of Harbor Seals from EVOS: Condition and Health Status	ADFG	Castellini/UAF	$187.4	$214.1	$214.1	$192.3	$48.1	$0.0	$454.5	2nd yr. 4 yr. project	*$214.1*	

Abstract

This project focuses on the health of harbor seals, a marine mammal species that is not recovering in Prince William Sound. Personnel from the University of Alaska in cooperation with the Alaska Department of Fish and Game will work with harbor seals to assess their health, blood and blubber chemistry and size in relation to their ecological and nutritional requirements. The project addresses potential health and nutritional problems that may be impeding harbor seal recovery.

Chief Scientist's Comments

This is a solid technical proposal that addresses a basic question about recovery of harbor seals in the oil spill area. The investigator is well qualified, and is helping to evaluate the most generally accepted hypothesis for the seals' decline.

Trustee Council Action

Fund. This project will document the body condition and nutritional status of harbor seals, thus helping to test the "is it food?" hypothesis for declines in the PWS harbor seal population. This information is necessary to eliminate alternative hypotheses (e.g., predation, disease). This project complements 96064 and will enable managers, subsistence hunters, and others to focus their concerns and efforts on the most probable sources of population decline.

96012A-BAA	Comprehensive Killer Whale Investigation in Prince William Sound, Alaska	NOAA	N Gulf Oceanic	$167.5	$107.2	$107.2				$107.2	2nd yr. 2 yr. project	*$80.8*	*$26.4*

Abstract

This project continues the monitoring of the damaged AB pod and other Prince William Sound killer whales that has occurred on a yearly basis since 1984. It develops a GIS database on killer whales that when coupled with genetic and acoustic data will help evaluate recovery, recognize changes in behavior, and estimate killer whale impact on harbor seals.

Chief Scientist's Comments

This is a very good proposal that will monitor killer whales in PWS to track their recovery, as well as compile past data on this species in GIS usable electronic files.

Trustee Council Action

Fund close-out of prior work including GIS component. Transfer of funds to contractor contingent upon approval of revised DPD and budget, as well as NOAA's approval of contract. Defer decision on monitoring killer whales in FY 96 and beyond until results of FY 95 work and recovery objective for killer whales are reconsidered.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96012B	Impact of Killer Whale Predation on the Recovery of Injured Resources in Prince William Sound	NOAA	NOAA	$229.5	$229.5	$0.0	$0.0	$0.0	$0.0	$0.0			

Abstract

The objective of the proposed project is to investigate the potential impact of killer whale predation on the recovery of PWS injured populations. We will collect biopsy samples from killer whales from each of two putative populations (suspected resident and transient whale populations) from PWS. Killer whale skin and blubber samples will be examined through stable isotope and fatty acid analyses to determine the fraction of the PWS killer whale population that predates on marine mammals versus fish.

Chief Scientist's Comments

This proposal would determine the trophic linkages between killer whales and their prey using two tracer methods: stable isotope analysis and free fatty acid ratios. Unpublished results from British Columbia indicate that resident and transitory types of whales can be discriminated easily on the basis of differences in the ratios of two fatty acids. The rate of killer whale predation on various species will not be able to be determined from this approach, and, in general, this proposal does not display a familiarity with the methods that convinces the reviewer that the Prinicpal Investigator can interpret the results.

Trustee Council Action

Do not fund. The Chief Scientist has significant technical concerns about this project as proposed.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96064	Monitoring, Habitat Use, and Trophic Interactions of Harbor Seals in Prince William Sound	ADFG	ADFG	$381.1	$347.3	$347.3	$347.0	$100.0	$25.0	$819.3	2nd yr. 5 yr. project	*$347.3*	

Abstract

This project will monitor the status of harbor seals in PWS and investigate the possible causes for the ongoing decline. Aerial surveys will be conducted to determine whether the population continues to decline, stabilizes, or increases. Seals will be satellite-tagged to describe their movements, use of haulouts, and hauling out and diving behavior. Samples of blood, blubber, whiskers, and skin will be collected to study diet, health and condition, and genetic relationships to other harbor seal populations.

Chief Scientist's Comments

This is a very good proposal for continuing work on restoration of harbor seals. The investigators are performing well.

Trustee Council Action

Fund. This basic study explores reasons for the long-term decline in harbor seals. Focus is on "is it food?" hypothesis, but also addresses alternatives, such as predation and disease. This work will enable resource managers, subsistence users, and others to focus their efforts and concern on the most probable causes of population decline.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96121-BAA	Stable Isotope Ratios and Fatty Acid Signatures of Selected Forage Fish Species in Prince William Sound, AK	NOAA	Worthy/TXAM	$51.0	$51.0	$0.0				$0.0			

Abstract

This study will examine the feeding ecology of killer whales and their possible impact on harbor seals within PWS. Evidence suggests that the non-recovering status of harbor seals may be due to predation by killer whales. Traditional methods of food web analysis cannot determine whether this is true, but the combination of stable isotope tracer techniques and fatty acid signature analysis will allow us to estimate the degree of interaction between these two injured species.

Chief Scientist's Comments

This is a technically innovative program that will analyze fatty acid composition in forage fish, including analysis of the stable isotope composition of the fatty acid molecules. The purpose of the project is to use these findings to decipher the diet of fish-eating killer whales, although it is not certain that these "cutting edge" techniques can discriminate prey species effectively. The project is cost-effective. Coordination with Project 96170 should prevent duplication of effort.

Trustee Council Action

Do not fund. Project would document fatty acid/stable isotope composition of forage fishes, which are prey to killer whales and other marine mammals. This project would be appropriate only if 96012A and B were recommended for full funding, but they are not.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96170	Isotope Ratio Studies of Marine Mammals in Prince William Sound	ADFG	Schell/UAF	$146.6	$150.4	$150.4	$148.0	$127.0	$0.0	$425.4	2nd yr. 4 yr. project	*$150.4*	

Abstract

Stable isotope ratios are natural tracers of carbon and nitrogen transfers through food webs. Through a mix of captive animal studies, comparison of isotope ratios in archived and current marine mammal tissues and their potential prey species in the PWS, insight into environmental changes causing the decline of harbor seals may be possible. This project will supply the isotope ratio determinations for other projects using this technique in the PWS ecosystem. Over the 12 months of FY 96 funding about 10,000 samples in these related projects will be analyzed. (This project was formerly numbered 95320I2.)

Chief Scientist's Comments

Excellent in all respects. This project will doubtlessly provide insights into the functioning of the Prince William Sound ecosystem that cannot be obtained in other ways. It may well provide valuable information for modeling the entire ecosystem at a very reasonable cost. Coordination with Project 96121 should prevent duplication of effort.

Trustee Council Action

Fund. This project provides technical support for 96064, and will assist the SEA program (96320) by describing the food chains that support important commercial fisheries in PWS.

Nearshore Ecosystem Projects				$6,515.9	$6,426.0	$3,596.6	$2,470.4	$2,459.4	$1,340.0	$9,866.4		*$2,583.4*	*$1,013.2*

PAG Recommendation: This cluster should be targeted for fine tuning and budget reductions, at the discretion of the Executive Director. (This recommendation does not apply to any new projects that might be identified from this fall's oiling workshop.)

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96025	Mechanism of Impact and Potential Recovery of Nearshore Vertebrate Predators	DOI	DOI	$1,669.4	$1,728.2	$1,728.2	$1,669.4	$1,669.4	$450.0	$5,517.0	2nd yr. 4 yr. project	*$1,728.2*	

Abstract

The project assesses trophic, health, and demographic factors across a suite of "apex" predators injured by the spill to determine mechanisms constraining recovery and improve knowledge of the status of recovery. Primary hypotheses: 1) recovery of nearshore resources is limited by recruitment processes; 2) initial and/or residual oil in benthic habitats and in or on benthic prey has had a limiting effect on the recovery of predators; and 3) EVOS-induced changes in populations of benthic prey species have influenced the recovery of predators.

Chief Scientist's Comments

This program was peer reviewed in detail in March 1995, and an 18-month workplan was approved by the Trustee Council. A detailed review of the first full field season of this program will be conducted in the fall or winter of 1996 in order to define the program for FY 96.

Trustee Council Action

Fund. Project will be reviewed in fall of 1995 to see if modifications in 1996 Detailed Project Description are necessary based on 1995 field season. Budget will be reevaluated following review session. In g[illegible]l, the nearshore ecosystem, including intertidal habitat and organism[illegible]s hardest hit by the spill. This project monitors recovery of intertidal organisms and closely linked vertebrate predators and addresses question of whether continuing contamination is slowing recovery of vertebrate predators.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96027	Kodiak Archipelago Shoreline Assessment: Monitoring Surface and Subsurface Oil	ADEC	ADEC	$35.1	$60.0	$60.0	$0.0	$0.0	$0.0	$60.0	2nd yr. 2 yr. project	*$60.0*	

Abstract

This project completes work begun in FY 95 to determine the areal extent, toxicity and origin of oil on selected Kodiak Archipelago shorelines. Most of these shorelines were last surveyed in 1990. The information about the remaining oil is necessary to determine whether recovery is proceeding at an acceptable rate; to help local people assess whether the presence of remaining oil is still affecting shoreline activities; to determine the origin and toxicity of any remaining oil; and to determine if any beaches need additional treatment.

Chief Scientist's Comments

This is close-out funding to hold community meetings and complete the final report.

Trustee Council Action

Fund. This project closes out work funded in FY 95.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96037	Coastal Habitat Intertidal Monitoring	ADFG	Highsmith/UAF	$609.2	$550.0	$550.0	$550.0	$550.0	$360.0	$2,010.0	1st yr. 3 yr. project	*$550.0*	

Abstract

The Coastal Habitat Injury Assessment study showed continued injury to intertidal algal and invertebrate populations when last sampled in 1991. A limited number of sites was monitored in PWS and Kenai through 1994 and showed continued damage. This study proposes to revisit the original sites to determine their recovery status. Intertidal communities are integral to the nearshore ecosystem and monitoring is critical for understanding long-term effects of the spill.

Chief Scientist's Comments

This is a solid program that revisits the spill-wide sites that have not been surveyed since 1991. Damage was extensive in sheltered rocky shores, coarse-textured beaches, and estuarine habitats at that time. This work should be done again. However, I am concerned with the price of the work.

Trustee Council Action

Defer. Although more information on recovery of intertidal biota is highly desirable, this is an expensive, new commitment, which must be considered in the context of other requests for new project support. Primary value of this work is documentation of injury and recovery, with few management applications. Monitoring was last done in 1991.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96056	Sea Otter Transplantation/Clam Restoration	DOI	D. Warner			$0.0				$0.0			

Abstract

This project seeks to restore clam populations in the Cordova area by transplanting roughly 300 sea otters from Cordova to the central and southern portions of PWS, followed by restocking razor clam beds with clams from other areas. Restocking dungeness crab is also proposed.

Chief Scientist's Comments

This was a project idea rather than a complete proposal. However, the mobility of sea otters makes the technical approach infeasible. Efforts by the California Department of Fish & Game found that some transplanted sea otters would travel 100 miles in a week to return to their original location.

Trustee Council Action

Do not fund. This project idea is not technically feasible.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96067-BAA	Juvenile Fish Habitat Identification and Assessment	DOI	Mitchell/MBC	$467.4	$467.4	$0.0				$0.0			

Abstract

This study will sample nearshore habitats for juvenile fish. Embayments with eelgrass beds and shallow soft-bottomed coastal areas in PWS will be sampled in oiled and unoiled areas. The study will help define important nursery grounds as well as demonstrate the amount to which these areas have been degraded by oiling.

Chief Scientist's Comments

Link to damaged resources has not been made and this proposal is somewhat duplicative of work in progress. Future proposals should be integrated with ecosystem studies now underway.

Trustee Council Action

Do not fund. This proposal has a weak link to restoration, and would be strengthened by integration with ecosystem studies.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96072	Status and Potential Recovery of the Black Oystercatcher: An Apex Predator in the Nearshore Environment	DOI	DOI	$157.7	$157.7	$0.0				$0.0			

Abstract

This proposal questions the current status of the black oystercatcher as a recovering species, and presents a plan of action for improved monitoring of the species and evaluation of factors (e.g., demography, oil toxicity, food, genetic variability) that may be limiting recovery of the population.

Chief Scientist's Comments

Although the authors question the classification of the oystercatcher as "recovering," the point remains arguable. I recommend deferring until results of 1996 boat surveys are complete and preliminary results of the NVP project are available, which may indicate continuing contamination in the nearshore food chain/ecosystem. If there is indication of lack of recovery of oystercatchers, a proposal emphasizing use of artificial incubation as a restoration technique might be appropriate.

Trustee Council Action

Do not fund at this time. Reconsider for FY 97 based on Chief Scientist's recommendation.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96086	Herring Bay Monitoring and Restoration Studies	ADFG	Highsmith/UAF	$185.3	$173.0	$173.0	$0.0	$0.0	$0.0	$173.0	7th yr. 7 yr. project	*$173.0*	

Abstract

In 1990, intertidal restoration studies were established in Herring Bay in response to the T/V *Exxon Valdez* oil spill. These studies have continued through the 1994 field season and show continued injury to *Fucus gardneri* and the associated invertebrate population, especially in the upper intertidal. Data collected during the 1995 field season will be incorporated into the existing Herring Bay database and the rates and extents of recovery determined for injured resources.

Chief Scientist's Comments

This is a project that was funded from 1990 through 1995, with close-out scheduled for FY 96. The budget appears to be high for a close-out project.

Trustee Council Action

Fund. Project is close-out (data analysis and report writing only) for studies previously funded by the Trustee Council.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96088	Fucus as Structure for Other Organisms	ADFG	Stekoll/UAF	$302.5	$302.5	$0.0				$0.0			

Abstract

The brown alga, *Fucus gardneri*, is the dominant organism in the upper intertidal community where it provides food, foraging areas, and shelter for a variety of other plants and animals. The goals of this project are to 1) define the factors which have limited the recovery of *Fucus* populations, 2) test various techniques to accelerate the recovery of *Fucus* populations in the upper intertidal, 3) determine the consequences for other organisms due to this slow recovery of *Fucus* and 4) define the geographical extent of upper intertidal habitat throughout PWS that has not recovered.

Chief Scientist's Comments

This project poses many of the same questions that have been asked in the Herring Bay intertidal studies for the previous five years. This upper intertidal system might be appropriate for work in the future with new questions, possibly in response to an RFP.

Trustee Council Action

Do not fund. Lower priority than other coastal habitat work at this time.

96090	Mussel Bed Restoration and Monitoring	NOAA	NOAA	$209.7	$205.1	$205.1	$0.0	$0.0	$0.0	$205.1	5th yr. 5 yr. project	*$205.1*	

Abstract

In FY 96 a comprehensive report will be produced synthesizing and summarizing four years of studies on the persistence of oiling in mussel beds in PWS and the Gulf of Alaska and restoration of 12 of these beds. Chemical analyses of mussel and sediment samples collected in 1995 will be completed early in 1996. No new sample collection or site visits are proposed for FY 96.

Chief Scientist's Comments

It is essential to complete this close-out project but the budget appears to be high. The labor for the report writing is very high, given the donation of time by NOAA (which is recognized and appreciated).

Trustee Council Action

Fund. Project would close-out previous study on contamination of mussel beds by oil. Oiled mussel beds may be a pathway for on-going contamination of nearshore vertebrate predators. Information gathered could lead to further cleaning and restoration of mussel beds.

96094	Improving Recovery Rates on Shorelines in PWS Using Enhanced Bioremediation	ADEC	ADEC	$965.6	$965.6	$0.0				$0.0			

Abstract

This 3-year project will identify reasons why remaining subsurface oil on PWS shorelines has not biodegraded and assess the impact this is having on shoreline recovery. Based on site characterization and risk, the project will recommend and test, if appropriate, use of selected non-intrusive, non-commercial bioremediation enhancement methods to accelerate stalled biodegradation.

Chief Scientist's Comments

There are serious questions as to whether nutrient supply is a limiting factor in the removal of oil from Prince William Sound beaches. Also, I doubt that the remaining oil is seriously affecting the ecosystem. (The main problem is that oil residue is offensive to local residents, who want something done about it.) This study is expensive and time consuming, and may not satisfy local concerns.

Trustee Council Action

Do not fund. However, a workshop will be held this fall with the Chief Scientist, community leaders, agency representatives, and other interested parties to review the status of persisting oil and the objectives of any future shoreline monitoring and cleanup.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96103-BAA	Whale Forestomach Anaerobic Microbes to Detoxify Oil Spills	NOAA	Craig/OSU	$170.7	$170.7	$0.0				$0.0			

Abstract

Complete microbial bioremediation of oil spills in the environment is currently limited by oxygen availability. We have preliminary evidence that anaerobic bacteria from the forestomach of bowhead whales have the unique ability to metabolize a range of fuel oil components anaerobically. This project: isolates anaerobic bacteria or bacterial consortia responsible for this activity from this habitat, assesses their ability to detoxify fuel oil components, and optimizes their growth for use in environmental bioremediation.

Chief Scientist's Comments

This is an imaginative proposal that could lead to the development of microbial cultures or other sorts of biotechnological approaches that might be applied to the clean-up of oil spills. Unfortunately, this research and development project would most likely be applicable to future oil spills and therefore does not address damages or restoration from the *Exxon Valdez* Oil Spill.

Trustee Council Action

Do not fund. Proposed work falls outside scope of civil settlement.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96104	Avian Predation on Blue Mussels in Prince William Sound	USFS	USFS	$127.1	$155.1	$155.1	$130.0	$120.0	$60.0	$465.1	1st yr. 3 yr. project		*$155.1*

Abstract

The nearshore vertebrate predator project (96025) hypothesizes that prey availability and competition for prey, such as blue mussels, could be constraining recovery of sea otters and harlequin ducks. This project will document the impact of avian predators, including surf scoters, glaucous-winged gulls, black oystercatchers, and surfbirds on mussel populations at northwest Montague Island. This project will gather information on the numbers and distribution of avian predators, and variability in their use of mussels.

Chief Scientist's Comments

Very responsive to discussion in January workshop. This is a study that would help us interpret the results of the NVP (96025) project. I recommend one year of funding and integration with the NVP program.

Trustee Council Action

Defer subject to availability of funds for new projects and further review of possibilities for integration with 96025. Information on avian predation would usefully complement Nearshore Vertebrate Predator studies (project 96025).

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96106	Subtidal Monitoring: Eelgrass Communities	ADFG	Jewett/UAF	$239.4	$250.0	$250.0	$0.0	$0.0	$0.0	$250.0	6th yr. 6 yr. project	*$250.0*	

Abstract

This project would provide funds to write the final report for Project 95106. The budget reflects projected costs of sample analysis, data analysis, and report preparation. The final report will incorporate and compare all data collected since 1991.

Chief Scientist's Comments

This is a close-out project for work previously funded by the Trustees. The investigator is doing a very good job on subtidal studies.

Trustee Council Action

Fund. Would close out work funded in previous years.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96108	Assessing the Effects of EVOS on Mussels and Fish: Using High Resolution Stable Isotope Records	ADFG	Carpenter/UT	$84.0	$84.0	$0.0				$0.0			

Abstract

Small portions of otoliths and mussel and barnacle shells will be sampled to provide a chemical record of the effects of EVOS on the mussel and fish populations of PWS. Findings will be used to assess the degree of initial and ongoing contamination of these resources. These new techniques will provide a detailed indicator of natural and anthropogenic stressors on these organisms and increase our knowledge of their physiological activity (e.g., growth rate, spawning, food-source variations and disease).

Chief Scientist's Comments

This proposal appears to have technical shortcomings and would contribute little to the restoration program.

Trustee Council Action

Do not fund. Project raises technical concerns and has weak link to restoration objectives.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96109-BAA	Decontamination and Restoration Process for Oil-Impacted Mussel Beds	NOAA	Alter/PES	$551.8	$551.8	$0.0				$0.0			

Abstract

This project's goal is to develop and validate for implementation a treatment process to decontaminate and restore oil-impacted mussel beds. The project includes toxicity tests of oil-removing agents and field evaluations of treatment processes.

Chief Scientist's Comments

Clean-up of oiled mussel beds may or may not be a high priority following completion of 96090. Once the Trustees have a final report on this project, we can assess the need for further work or alternative approaches.

Trustee Council Action

Do not fund at this time. Project should be considered after review of current work.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96160	Assessment of Recovery from Surface Oiling, Subsurface Oiling, and Subsurface Invertebrate Contamination by Oil on Gulf of Alaska Shorelines	DOI	DOI	$129.7	$129.7	$0.0				$0.0			

Abstract

This project would assess and monitor surface and subsurface oil at 12 and 10 sites, respectively. It will document subsurface oil through excavations and monitor its weathering using an innovative system of collection wells. Amphipods, widespread invertebrates living within the beach substrate, will be monitored for tissue contamination by buried hydrocarbons.

Chief Scientist's Comments

It is not clear that continued contamination of the coastal areas of the Alaska Peninsula is very widespread. Amphipods are not very appropriate organisms for monitoring hydrocarbon accumulation; *Mytilus* would probably be better. The utility of wells is questionable.

Trustee Council Action

Do not fund. However, a workshop will be held this fall with the Chief Scientist, community leaders, agency representatives, and other interested parties to review the status of persisting oil and the objectives of any future shoreline monitoring and cleanup.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96161	Harlequin Duck - Indicator Species for Ecological Monitoring and Recovery	DOI	DOI	$230.4	$98.0	$98.0	$0.0	$0.0	$0.0	$98.0	1st yr. 2 yr. project		*$98.0*

Abstract

The harlequin duck is an important ecological indicator in intertidal systems affected by the oil spill. This proposal will address the hypotheses that harlequin duck population distribution and abundance, productivity and physiological condition have been impacted in oiled areas of the Gulf of Alaska.

Chief Scientist's Comments

This pilot project would test the effectiveness of satellite tags to monitor the movement of harlequin ducks between Kodiak/Alaska Peninsula and Price William Sound. There is extensive cost sharing by DOI. It could provide a better understanding of harlequin ducks in the spill area, but it needs to be considered within the context of the total restoration effort for this species.

Trustee Council Action

Defer. Needs further review in relation to recovery objectives for harlequin ducks and two ongoing harlequin projects (96025 and 96427). Information on interchange among harlequin duck populations in PWS, Kenai coast, etc. will help develop a harvest management strategy that is based on a solid understanding of the biogeography of harlequins in the north gulf coast region.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96290	Hydrocarbon Data Analysis, Interpretation, and Database Maintenance	NOAA	NOAA	$119.8	$116.1	$116.1	$121.0	$120.0	$470.0	$827.1	5th yr. 11 yr. project	*$116.1*	

Abstract

This project is a continuation of the NRDA and Restoration database management, hydrocarbon interpretation and sample storage service. Subsistence response and restoration data will continue to be incorporated into the Trustee hydrocarbon database. A summary report for investigators and managers will be produced with an electronic copy of the database, that will allow easier access to this information. New user groups of the database will be identified, and tailored user interfaces will be generated.

Chief Scientist's Comments

This is an excellent proposal. The work is necessary to support the many projects, both past and present, that continue to face the task of obtaining and correctly interpreting environmental hydrocarbon data.

Trustee Council Action

Fund. Project is on-going analysis of hydrocarbon data for other Trustee Council funded studies. This project will make these data available to the scientific community and the public, including "on-line" via the computer Internet.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96427	Harlequin Duck Recovery Monitoring	ADFG	ADFG	$261.1	$261.1	$261.1				$261.1	3rd yr. 4 yr. project	*$51.0*	*$210.1*

Abstract

This project will compare population parameters between oiled and unoiled areas based on population structure, behavior, production, and growth rates. Shoreline boat surveys will be conducted simultaneously. Changes in population size, structure, and production in oiled and unoiled areas and between years will be compared. Continued population monitoring and brood surveys will allow us to assess trends and suggest factors limiting recovery.

Chief Scientist's Comments

Surveys of harlequin ducks are a high restoration priority. However, without statistical justification, a decision on work for 1997 and beyond should be made later. Three more years of effort are proposed for this project. This request for future work should be examined after review of FY 96 work.

Trustee Council Action

Fund interim costs; defer decision on balance of FY 96 funding until report from prior year (Project B11) is submitted. Consider funding for future years after review of FY 96 work. This project continues a series of studies focusing on injury to and recovery of harlequin ducks in PWS. This information will help determine when current harvest restrictions can be lifted and whether additional actions, such as more cleanup of oiled mussel beds, are necessary.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
Seabird/Forage Fish Ecosystem Project				$1,982.6	$1,982.6	$1,982.6	$1,964.0	$1,964.0	$2,200.0	$8,110.6		*$250.7*	*$1,731.9*
96163	APEX: Apex Predator Ecosystem Experiment in Prince William Sound and the Gulf of Alaska						$1,964.0	$1,964.0	$2,200.0	$6,128.0	2nd yr. 5 yr. project		

Abstract

This study will use seabirds as "probes" of the trophic environment of PWS and compare their reproductive and foraging biologies with similar measurements from the Barren Islands, an area with more suitable or abundant food. Measurements will be compared with hydroacoustic and net samples of fish to calibrate seabird performance with fish distribution and abundance. The project will use fish samples to compare diet, energetics and reproductive parameters of different forage-fish species to determine whether competitive and predatory interactions or different responses to the environment may be favoring the abundance of one fish species over another.

Chief Scientist's Comments

Project to be subject of detailed review in November 1995, as voted by the Trustee Council in approving the FY 95 startup of this project.

Trustee Council Action

Defer pending a project review with the Chief Scientist (fund interim). Project addresses the "is it food?" hypothesis for several seabird species that are in continuing decline. This information could help inform future fisheries management decisions, particularly if commercial interest in fisheries for capelin and other small, oil-rich species was to emerge.

96163A	Abundance and Distribution of Forage Fish and their Influence on Recovery of Injured Species	NOAA	NOAA	$711.2	$711.2	$711.2				$711.2	2nd yr 5 yr project	*$6.8*	*$704.4*

Abstract

See 96163.

Chief Scientist's Comments

See 96163.

Trustee Council Action

See 96163.

96163B	Foraging of Seabirds	DOI	DOI	$138.7	$138.7	$138.7				$138.7	2nd yr 5 yr project	*$25.2*	*$113.5*

Abstract

See 96163.

Chief Scientist's Comments

See 96163.

Trustee Council Action

See 96163.

96163C	Fish Diet Overlap Using Fish Stomach Content Analysis	NOAA	NOAA	$133.1	$133.1	$133.1				$133.1	2nd yr 5 yr project	*$41.7*	*$91.4*

Abstract

See 96163.

Chief Scientist's Comments

See 96163.

Trustee Council Action

See 96163.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96163D	Distribution of Forage Fish as Indicated by Puffin Diet Sampling	DOI	DOI	$72.3	$72.3	$72.3				$72.3	2nd yr 5 yr project	*$12.0*	*$60.3*
Abstract See 96163.			Chief Scientist's Comments See 96163.						Trustee Council Action See 96163.				
96163E	Black-legged Kittiwakes as Indicators of Forage Fish Availability	DOI	DOI	$181.8	$181.8	$181.8				$181.8	2nd yr 5 yr project	*$30.6*	*$151.2*
Abstract See 96163.			Chief Scientist's Comments See 96163.						Trustee Council Action See 96163.				
96163F	Factors Affecting Recovery of Pigeon Guillemot Populations	DOI	DOI	$197.8	$197.8	$197.8				$197.8	2nd yr 5 yr project	*$30.6*	*$167.2*
Abstract See 96163.			Chief Scientist's Comments See 96163.						Trustee Council Action See 96163.				
96163G	Diet Composition, Reproductive Energetics, and Productivity of Seabirds	NOAA	Roby/UAF	$186.5	$186.5	$186.5				$186.5	2nd yr 5 yr project	*$3.8*	*$182.7*
Abstract See 96163.			Chief Scientist's Comments See 96163.						Trustee Council Action See 96163.				
96163H	Proximate Composition and Energetic Content of Selected Forage Fish Species in PWS	NOAA	Texas A&M	$44.6	$44.6	$44.6				$44.6	2nd yr 5 yr project		*$44.6*
Abstract See 96163.			Chief Scientist's Comments See 96163.						Trustee Council Action See 96163.				
96163I	APEX Planning and Project Leader	DOI	DOI	$124.2	$124.2	$124.2				$124.2	2nd yr 5 yr project	*$56.9*	*$67.3*
Abstract See 96163.			Chief Scientist's Comments See 96163.						Trustee Council Action See 96163.				

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96163J	Barren Islands Seabird Studies	DOI	DOI	$98.7	$98.7	$98.7				$98.7	2nd yr 5 yr project	*$20.5*	*$78.2*

Abstract
See 96163.

Chief Scientist's Comments
See 96163.

Trustee Council Action
See 96163.

96163K	Using Predatory Fish to Sample Forage Fish	DOI	DOI	$20.4	$20.4	$20.4				$20.4	2nd yr 5 yr project	*$4.7*	*$1*

Abstract
See 96163.

Chief Scientist's Comments
See 96163.

Trustee Council Action
See 96163.

96163L	Historical Review of Ecosystem Structure in the PWS/GOA Complex and Abundance and Distribution of Forage Fish in the Barren Islands	DOI	DOI	$73.3	$73.3	$73.3				$73.3	2nd yr 5 yr project	*$17.9*	*$55.4*

Abstract
See 96163.

Chief Scientist's Comments
See 96163.

Trustee Council Action
See 96163.

Seabird/Forage Fish -- Related Projects				$1,685.0	$1,419.2	$795.6	$321.6	$103.9	$458.5	$1,679.6		*$507.6*	*$288.0*
PAG Recommendation: See Seabird/Forage Fish Ecosystem Project.													
96021	Seasonal Movements and Pelagic Habitat Use by Common Murres and Tufted Puffins	DOI	DOI	$166.3	$121.3	$121.3	$121.3	$20.0	$0.0	$262.6	2nd yr. 4 yr. project		*$121.3*

Abstract
Common murres were the bird species most heavily impacted by the *Exxon Valdez* oil spill. The failure to recover documented in this species 5 years after the oil spill may be related to a long-term decline in the availability of suitable forage. Tests of hypotheses concerning food limitation on murre population recovery and the application of puffins as fish samplers require information on the foraging ranges and feeding areas of birds from specific colonies.

Chief Scientist's Comments
This is a meritorious scientific study that promises to provide significant new information on diving behavior and foraging range of murres and tufted puffins. The winter location of murres may be identified by this project. The results of the 1995 pilot study and the first year of the APEX program should be evaluated prior to committing funds for FY 96.

Trustee Council Action
Defer pending November review and a clearer sense of the importance of this work to objectives in 96163, the APEX project. If funded, recommend funding only common murre component. Project could help interpret hydroacoustic data on the distribution and abundance of forage fish in terms of whether those fish are actually available to foraging seabirds. Will also establish wintering areas of common murres, which could lead to the identification of restoration measures to maintain and protect this injured species.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96031	Development of a Productivity Index to Monitor the Reproductive Success of Marbled and Kittlitz's Murrelets in Prince William Sound, Alaska	DOI	DOI	$254.6	$117.6	$117.6	$50.0	$39.9	$0.0	$207.5	2nd yr. 4 yr. project	*$67.6*	*$50.0*

Abstract

This project will develop a means to monitor the productivity of marbled and Kittlitz's murrelets. The reproductive success of these two non-colonial seabirds can not be monitored using standard techniques. To develop a productivity survey protocol, murrelets will be surveyed at sea to determine the timing and abundance of juveniles, the ratio of juveniles to adults and the coastal and marine features that best predict juvenile abundance. By monitoring murrelet productivity in relation to population trends, this index can eventually be used to determine what factors influence murrelet recovery.

Chief Scientist's Comments

An index of marbled murrelet productivity is a desirable product for the restoration program. In addition, results of past Trustee-sponsored marbled murrelet work need to be synthesized and published. Consider for funding after review of 1995 data.

Trustee Council Action

Fund close-out of FY '95 work and synthesis of prior murrelet studies. Defer decision on new murrelet surveys in FY 96 pending the APEX (96163) review in November.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96038	Publication of Seabird Restoration Workshop	DOI	Pac Seabird Gr	$31.0	$15.0	$15.0	$0.0	$0.0	$0.0	$15.0	2nd yr. 2 yr. project		*$15.0*

Abstract

The Trustee Council has funded the Pacific Seabird Group (PSG) to hold a workshop in September 1995 to bring together experts in seabird biology and restoration. It will include discussions of the theoretical and practical aspects of seabird restoration and provide recommendations for restoration plans founded on the best available scientific information and opinion. This proposal seeks funds for the writing and publishing of manuscripts summarizing the workshop discussions.

Chief Scientist's Comments

The results of the workshop should appear in print and be accessible to the public. I don't recommend funding at the amount requested. However, pending review of a Table of Contents, I could support a lesser amount, perhaps with a matching requirement. Also needs to make greater effort to prepare summary/public information materials for general public as opposed to only a scientific audience.

Trustee Council Action

Defer decision pending review of results of September workshop (95038) to determine whether additional reporting is useful.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96101	Removal of Introduced Foxes From Islands	DOI	DOI	$88.9	$8.4	$8.4	$0.0	$0.0	$0.0	$8.4	3rd yr. 3 yr. project	*$8.4*	

Abstract

Populations of three species of birds injured by the oil spill (black oystercatcher, pigeon guillemot and common murre) will be allowed to increase by removing introduced arctic foxes from Seguam Island. Although it is outside the area directly affected by the oil spill, Seguam Island has a particularly high potential for restoring populations of these species because it contains substantial amounts of habitat and remnant populations of all three species are present.

Chief Scientist's Comments

I have supported fox removal as a highly effective but low cost restoration technique. One issue is that Seguam Island is far from the spill zone. Target species were injured by the spill, but would have to be justified on replacement/equivalent resource basis. Every opportunity to take concrete measures of program effectiveness should be used.

Trustee Council Action

Fund close-out of prior work (95041). Do not fund new work at Seguam Island because the benefit to spill-affected populations is not established.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96120-BAA	Proximate Composition and Energetic Content of Selected Forage Fish Species in Prince William Sound, AK	NOAA	Worthy/TXAM	$40.9	$40.9	$0.0				$0.0			

Abstract

This study will provide the data necessary for interpreting food web dynamics and ecology of the "apex" predators of PWS. In any long-term study of foraging ecology, especially those investigating the recovery of impacted species, knowledge of prey species composition and energetic value is critical in the interpretation of consumption rates and therefore the impact of consumer species upon prey species stocks. Compositional analysis will also yield important information on the general quality of the environment by assessing the condition of important prey species.

Chief Scientist's Comments

While technically sound, this proposal lacks sufficient linkage to a particular model or hypothesis and there is no prioritization of potential sources of samples. This work should be considered in the future if net-caught forage fish are to be used as an index of prey quality for seabirds.

Trustee Council Action

Do not fund at this time. Project will be considered during November 1995 APEX review (96163). Any funds for this project will need to come from the overall funding approved for APEX.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96122	Mapping Potential Nesting Habitat of the Marbled Murrelet in Prince William Sound Using Habitat Models Linked to Geographic Databases	USFS	USFS	$168.8	$123.0	$0.0				$0.0	1st yr. 2 yr. project		

Abstract

This project would identify potential habitat of the marbled murrelet in PWS by linking habitat models to geographic databases of vegetation and physical site characteristics. Areas identified as having a high probability of containing nesting habitat could become focal areas for planning management prescriptions to favor maintenance of murrelet habitat.

Chief Scientist's Comments

This could be an important project, but I have questions about quality of the murrelet habitat model. The habitat model needs additional review by murrelet biologists.

Trustee Council Action

Do not fund. This project would summarize several years of Trustee-sponsored studies on marbled murrelet nesting habitat. Resulting maps of potential murrelet habitat could be useful in planning and carrying out timber harvests that could impact marbled murrelets in the spill area. However, the Public Advisory Group recommended deferring this project until there has been greater advance consulta with private land owners. There also are questions about whether the scale of the resulting maps will be sufficiently large to assist project decisions and land owners on the ground.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96142-BAA	Status and Ecology of Kittlitz's Murrelet in Prince William Sound	NOAA	ABR, Inc.	$110.2	$168.7	$168.7				$168.7	1st yr.	*$168.7*	

Abstract

This project would investigate the status and ecology of Kittlitz's Murrelet, a rare seabird breeding in glaciated fjords of Prince William Sound (PWS). The study will evaluate the abundance, distribution, and productivity of this little known seabird and assess its habitat use and feeding habits in northwestern PWS. Given uncertainty about the effects of the oil spill on this species, a better understanding of its status and ecology is required to ensure its long-term conservation.

Chief Scientist's Comments

This is an excellent proposal on a bird species that was perhaps the most injured of any by the spill. Our knowledge of this species is so sketchy that this project is justified. This project may be useful for discovering restoration actions. The investigator is well qualified with an extensive background in alcid biology. The study should be reviewed after the first year to assess progress and whether the mapping work will be done at a sufficiently large scale to be of use on the ground.

Trustee Council Action

Fund FY 96 only; future years' funding dependent on FY 96 results. Kittlitz's Murrelet has a small world-wide population, and, proportionate to that population, it may have been the species hardest hit by the oil spill. This study will gather basic information on a rare, poorly known seabird, which may lead to identification of restorat measures.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96143-BAA	Recovery of Bird and Mammal Populations in Prince William Sound After the *Exxon Valdez* Oil Spill	DOI	ABR, Inc.	$321.2	$321.2	$0.0				$0.0			

Abstract

This study will assess the status of recovery of bird and mammal populations injured in the aftermath of the Exxon oil spill and is an extension of a study conducted in Prince William Sound in 1989-91. The project proposes to conduct three surveys each year during 1996-98 in nearshore and offshore habitats and will assess recovery based on wildlife use of oil-affected habitats and population status relative to prespill levels.

Chief Scientist's Comments

This project essentially duplicates the boat surveys of bird and sea otter populations being carried out by the USFWS (96159). Although the proposal is very professional and actually has the advantage of a broader look at population recovery over the USFWS, we would have to abandon the time-series compiled by the government since 1972 due to methodological differences.

Trustee Council Action

Do not fund. Cannot justify support for this new survey while continuing funding of 96159.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96144	Common Murre Population Monitoring	DOI	DOI	$101.7	$101.7	$101.7	$125.3	$44.0	$458.5	$729.5	1st yr. 3 yr. project		*$101.7*

Abstract

The project is designed to determine whether common murre populations at a series of index colonies within the area affected by the oil spill are recovering. This objective will be accomplished by counting murres at all five locations to document the presence or absence of post-spill population trends. Each location will be surveyed every 3 years, but the field work is planned so that a portion of it will be accomplished annually (i.e. colonies in the western portion of the spill zone will be surveyed in FY 96, central colonies will be counted in FY 97, and the eastern-most colonies will be visited in FY 98).

Chief Scientist's Comments

This is a solid continuing study that is an integral part of the restoration program to monitor recovery of murres. However, all '96 monitoring programs are to have done a power analysis to determine the appropriate frequency of sampling. This proposal lacks a power analysis.

Trustee Council Action

Defer. Approval subject to availability of funds. Project can be deferred until FY 97 with no harm to the injured resource. The results of the power analysis should be included in future proposals.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96148	Kittlitz's Murrelet: Biology, Abundance, and Population Genetics	DOI	DOI	$99.8	$99.8	$0.0				$0.0			

Abstract

This project will 1) compile and analyze available unpublished and published data to assess the abundance and distribution of Kittlitz's Murrelet in Alaska, and, 2) conduct original research on the breeding biology, pelagic distribution and population genetics of Kittlitz's Murrelet in Alaska.

Chief Scientist's Comments

Kittlitz's murrelets are a species that is of great interest to the Trustee Council restoration program. However, the design is not sufficently explicit nor focused. There is a better proposal before the Trustee Council.

Trustee Council Action

Do not fund. Cannot justify support for this project while also starting 96142-BAA, which is a superior proposal.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96159	Surveys to Monitor Marine Bird Abundance In Prince William Sound During Winter and Summer 1996	DOI	DOI	$262.9	$262.9	$262.9	$25.0			$287.9	1st yr. 2 yr. project	*$262.9*	

Abstract

We propose to conduct small boat surveys to monitor abundance of marine birds and sea otters in PWS during March and July 1996. Previous surveys have observed >65 bird and 8 marine mammal species in PWS. Data collected in 1996 will be used to examine trends from summer 1989-96 and from winter 1990-96 by determining whether populations in the oiled zone changed at the same rate as those in the unoiled zone. Overall population trends for PWS from 1989-96 also will be examined.

Chief Scientist's Comments

This is a solid proposal for monitoring seabirds and sea otters. The surveys have been done since 1989 and there are similar data from 1984 - 85. The proposers have done a power analysis that indicates a low power of detecting change in populations with infrequent sampling. The proposed biannual monitoring schedule appears reasonable in light of the analysis, but future commitments should be reviewed with regard to balance between monitoring injured resources and ecological investigations.

Trustee Council Action

Fund for this monitoring cycle only. Future monitoring will be evaluated when proposed. The surveys provide basic information on status and recovery of an entire suite of marine birds (and sea otters) in PWS.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96175	Remote Video System Seabird Monitoring Project	DOI	DOI	$38.7	$38.7	$0.0				$0.0			

Abstract

The project will test the ability of a robotically controlled video monitoring system to remotely collect real-time productivity, nesting chronology, adult time budget, and chick feeding rate data on common murres and other seabirds more accurately and at lower costs than current methods allow at colonies with difficult access. The proposal is based on a prototype system that was designed and successfully tested in Kachemak Bay and the Barren Islands in FY 94. Data will be collected both remotely and manually on the same sets of plots using the same basic methods in conjunction with Project 96163J.

Chief Scientist's Comments

The proposed testing of a promising technology is innovative, but the link to restoration (assessing murre productivity) is not compelling given the apparent recovery. The cost effectiveness of this project was questionable given expense of equipment and associated technicians, and the fact that some deployment costs are being absorbed in other projects.

Trustee Council Action

Do not fund at this time. Project could be reconsidered in the future if extended monitoring of murres is necessary.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
Subsistence Projects				$2,602.6	$2,594.0	$1,564.6	$1,404.3	$1,108.8	$1,594.8	$5,672.5		*$878.4*	*$686.2*
PAG Recommendation: The PAG recommends approval of a budget of approximately $1.3 million, as recommended by staff. (The discussion indicated that fine-tuning may be appropriate for specific projects and budgets may need to be revised.)													
96009D	Survey of Octopuses in Intertidal Habitats	USFS	PWSSC	$134.0	$134.0	$134.0	$40.9	$0.0	$0.0	$174.9	2nd yr. 3 yr. project	*$37.2*	*$96.8*

Abstract

This project addresses concerns that octopus and chiton have been depleted by EVOS and that subsistence uses are impaired. The first year (FY95) is to establish the feasibility of working on octopus in the Sound, identify suitable study sites, and evaluate techniques. The second year (FY96) will focus on the vertical distribution of octopus in the nearshore where they are harvested. Close-out costs are requested in the third year (FY97).

Chief Scientist's Comments

Defer decision until results of FY 95 field season available.

Trustee Council Action

Defer decision until results of FY 95 field season are available (fur interim). Project is designed to address concern that octopus and chiton have been depleted by EVOS and that subsistence uses are impaired.

96052	Community Involvement & Use of Traditional Knowledge	ADFG	CRRC	$210.0	$261.0	$261.0	$250.0	$250.0	$1,000.0	$1,761.0	2nd yr. 8 yr. project	*$261.0*	

Abstract

This project, submitted by the Chugach Regional Resources Commission (CRRC), will continue a program begun in FY 95. This project will encourage and facilitate communication among the Trustee Council, researchers working on oil spill restoration projects, regional organizations and residents of communities impacted by the oil spill. The goal is to make optimal use of the complementary nature of scientific data and traditional knowledge.

Chief Scientist's Comments

Addresses needed restoration work by furthering interactions between EVOS scientists and community members.

Trustee Council Action

Fund. This project will continue a program to facilitate communication and interaction among the Trustee Council, scientists, and residents of communities impacted by the oil spill.

96052B	Community Interaction/Traditional Knowledge	ADFG	ADFG	$298.3	$298.3	$0.0				$0.0			

Abstract

This project, submitted by Subsistence Division/ADFG, will continue a program to encourage and facilitate communication among the Trustee Council, researchers working on oil spill restoration projects, regional organizations and residents of communities impacted by the oil spill. The goal is to make optimal use of the complementary nature of scientific data and traditional knowledge.

Chief Scientist's Comments

See 96052.

Trustee Council Action

Do not fund as separate project. See 96052.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96127	Tatitlek Coho Salmon Release	ADFG	Tatitlek IRA	$52.7	$26.6	$26.6	$15.9	$15.9	$15.9	$74.3	2nd yr. 5 yr. project	*$26.6*	

Abstract

Project will create a coho salmon return to Boulder Bay near Tatitlek village. Enough coho eggs to produce 20,000 smolts will be collected from an ADF&G approved stream, incubated and reared to smolt at the Solomon Gulch Hatchery, transported and held for two weeks in net pens in Boulder Bay before release. Release will produce a 2,000 to 3,000 adult return to Boulder Bay for harvest in a subsistence fishery.

Chief Scientist's Comments

Excellent project, technically sound, highly feasible. However, Trustee Council funding should be limited to maximum of one life cycle of coho (approximately 4 years).

Trustee Council Action

Fund. Fund for 4 years (one coho life cycle). Project will create a coho salmon run near Tatitlek as a replacement resource for subsistence resources injured by the oil spill.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96131	Chugach Native Region Clam Restoration	ADFG	ChugachRRC	$405.6	$405.6	$405.6	$413.6	$417.4	$417.4	$1,654.0	2nd yr. 6 yr. project	*$405.6*	

Abstract

Resident clam populations near the Native villages of Port Graham, Nanwalek, Chenega Bay, Tatitlek, Eyak and Ouzinkie will be re-established to restore diminished subsistence opportunities. The Qutekcak hatchery in Seward will annually provide about 800,000 juvenile littleneck clams, cockles and, if possible, butter clams for seeding. Historical information, local and agency expertise, and research will be used to identify areas to seed and methods used. Total seeded area will not exceed 5 hectares.

Chief Scientist's Comments

I recommend that there be a late autumn/early winter review of progress before FY 96 funding is approved. Very promising project; good potential. Environmental assessment (EA) should consider sea otter populations. Need to review production capacity of current facility and plans for future expansion.

Trustee Council Action

Defer decision pending results of FY 95 field season. Project would establish subsistence clam populations near several Native villages as replacement for subsistence resources injured by the oil spill.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96202	Port Lions Community Hall	ADFG	Port Lions	$150.0	$150.0	$0.0				$0.0			

Abstract

Funds would match $175,000 requested from the State Legislature for a community hall. Funds for the community hall were received prior to the oil spill but were lost, as no manpower was available for construction.

Chief Scientist's Comments

No link to restoration.

Trustee Council Action

Do not fund. No link to restoration of an injured natural resource.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96204	Kodiak Subsistence Resource Restoration Planning	ADFG	ADFG	$39.4	$39.4	$0.0				$0.0			

Abstract

The project would implement a more intensive subsistence resource restoration planning effort in Kodiak Island Borough communities as a follow-up to Projects 94428 and 95428. The goal would be to develop a coordinated set of resource restoration proposals for consideration in the FY 97 work plan. Methods will include several workshops and a series of community meetings.

Chief Scientist's Comments

Some further planning seems justified. However, such planning should go on under this project or under 96052.

Trustee Council Action

Do not fund as a separate project. Objectives can be integrated into 96052.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96205	Eyak Subsistence Recovery Camp Planning Project	DOI	Eyak Nat Vill	$40.8	$40.8	$0.0				$0.0			

Abstract

This project would plan for a Subsistence Recovery Camp for Alaska Native subsistence users affected by the oil spill. As identified by Picou and Gill (1992), Post-Traumatic Stress Syndrome is directly linked to the environmental damage done by the oil spill and the subsistence way of life. With the results of the oil spill still being felt by the communities through lack of or reduced abundance of specific species, there has been an upsurge of addictive behaviors.

Chief Scientist's Comments

Appears to be worthwhile idea; has worked in other localities. Consider for other funding.

Trustee Council Action

Do not fund. Not appropriate for civil settlement funds. Recommend seeking alternate funding, since idea is worthwhile.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96206	Old Harbor Lagoon (Midway Culvert) Salmon Enhancement Feasibility Study	ADFG	Old Harbor	$28.8	$28.8	$0.0				$0.0			

Abstract

As a step towards restoring subsistence uses and resources at the community of Old Harbor, this project will determine the feasibility for coho and chum salmon enhancement for the Old Harbor lagoon system, by evaluating the potential for improving the early marine rearing opportunities for chum and coho salmon. It will evaluate the utility of raising the culvert through which this system empties into Sitkalidak Straits to a level which would provide increased water retention in the lagoon and thus increase the rearing area.

Chief Scientist's Comments

Project needs further refinement and greater detail.

Trustee Council Action

Do not fund at this time. Proposer may want to work with agency and Trustee Council staff to strengthen a future version of this proposal.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96207	Ocean Beach Sockeye Enhancement Feasibility Study	ADFG	Old Harbor	$92.7	$92.7	$0.0				$0.0			

Abstract

As a step towards restoring subsistence uses and resources at the community of Old Harbor, this project will determine the feasibility for sockeye salmon enhancement for the Ocean Beach Lake System, located on the east side of Sitkalidak Island. Feasibility determination efforts would focus on collecting stock status data, identifying minimum and optimum escapement requirements for natural production, and investigating the feasibility of enhancing wild production from this system.

Chief Scientist's Comments

Significant questions raised by this proposal. Would create substantial risks to native species; opportunity to address/minimize risks is low.

Trustee Council Action

Do not fund. Project raises significant questions about risk to native species.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96208	Kempff Bay Sockeye Enhancement Feasibility Study	ADFG	Akhiok City	$70.7	$70.7	$0.0				$0.0			

Abstract

As a step towards restoring subsistence uses and resources at the community of Akhiok, this project will determine the feasibility for sockeye salmon enhancement for the Akhiok Village Lake System, located at Kempff Bay on southern Kodiak Island. The feasibility study would focus on collecting stock-status data, identifying minimum and optimum escapement requirements for natural production, and investigating the feasibility of enhancing wild production from this system.

Chief Scientist's Comments

Significant questions raised by this proposal. Would create substantial risks to native species, and opportunity to address/minimize risks is low.

Trustee Council Action

Do not fund. Project raises significant questions about risk to native species.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96210	Prince William Sound Youth Area Watch	ADFG	Chugach RRC	$233.4	$115.0	$115.0	$100.0	$100.0	$0.0	$315.0	1st yr. 3 yr. project	*$115.0*	

Abstract

Students from Chenega Bay, Tatitlek and some outlying areas will participate in research projects identified by the Prince William Sound Science Center and other EVOS researchers. The objective is to increase the awareness of youth regarding the effects of the oil spill and encourage their involvement in research/restoration. Students will be involved in oceanographic testing, fish monitoring, bird and mammal observations, pristane/mussel analysis and octopus studies.

Chief Scientist's Comments

A solid proposal for a pilot project to involve local youth in the scientific aspects of the restoration program. Well presented and integrated proposal.

Trustee Council Action

Fund as a pilot project. However, no funds should be spent on this project until legal and budget review are complete, liability concerns are resolved, and final approval is received from the Executive Director.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96211	Community-Based Harbor Seal Biological Sampling Program	ADFG	ANHSC	$44.0	$44.0	$0.0				$0.0			

Abstract

A pilot project for collecting biological samples from subsistence-taken harbor seals from six communities of PWS and lower Cook Inlet would be designed, implemented, and evaluated. "User-friendly" data collection forms and an instructional video would be produced. Village-based technicians would be trained for collecting samples taken by hunters and transporting these samples to Anchorage for further sampling and transport for analysis. Findings would be disseminated by the Alaska Native Harbor Seal Commission (ANHSC) through a newsletter network.

Chief Scientist's Comments

Good approach to addressing the problem of lack of information on status and trends of harbor seals; good community involvement. Integrate with 96244.

Trustee Council Action

See 96244.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96212	Restoration of Subsistence Shellfish Consumption: A PSP Screening Program	ADFG	Kodiak Tribal	$167.7	$167.7	$167.7	$178.3	$151.3	$0.0	$497.3	1st yr. 3 yr. project		*$167.7*

Abstract

Subsistence users in the Kodiak Island Borough probably consume more shellfish (clams and crabs) per capita than any other region of Alaska. Since the oil spill, numerous cases of severe paralytic shellfish poisoning (PSP) have created fear about the safety of consuming these traditional foods. This proposal addresses the health concerns of subsistence users through active participation in a systematic testing program. Faster lab results should curtail the number of cases of PSP and save lives.

Chief Scientist's Comments

Excellent technical merit. However, there are several concerns including 1) the time to perfect the assay is considerable and hiring plans need to be flexible, and 2) availability of multiple saxotoxin standards.

Trustee Council Action

Defer decision until outstanding questions can be answered. Timing of development of chemical assay is uncertain, plus need to develop plan for a transition to non-Trustee Council funding. In addition, there are legal questions about agency liability. This project will increase subsistence users' confidence that the resources injured by the oil s[illegible] or other replacement subsistence resources, are safe to eat.

96213	Alaska Native Harbor Seal Commission	ADFG	ANHSC	$99.2	$99.2	$0.0				$0.0			

Abstract

The overall goal is to involve Alaska Natives directly in the harbor seal research and monitoring process and to help find solutions to restore the health of the injured species. Goals of the Alaska Native Harbor Seal Commission include: educating and informing the public and scientists on the traditional and contemporary relationship between harbor seals and Alaska Natives; informing scientists about the type and extent of knowledge held by local people about the harbor seal; involving Alaska Natives in the regulatory and management process.

Chief Scientist's Comments

Proposal is a good approach to harbor seal management, but there is a concern about the appropriateness of the Trustee Council funding operating costs for a statewide commission.

Trustee Council Action

Do not fund as a separate project. It is not appropriate for the Trustees to provide operating support for a statewide commission, but some of the tasks outlined in 96244 will be contracted to the commission.

96214	Documentary on Subsistence Harbor Seal Hunting in PWS	ADFG	Tatitlek Village	$74.5	$77.4	$77.4	$0.0	$0.0	$0.0	$77.4	1st yr. 1 yr. project	*$77.4*	

Abstract

The purpose of this project is to make a documentary on subsistence hunting of harbor seals in PWS. This video will document all facets of harbor seal hunting including the ecological and biological knowledge hunters use to hunt harbor seals. By documenting this knowledge, the project will enhance the restoration of the seal population by providing an indigenous hunter's perspective on harbor seal ecology.

Chief Scientist's Comments

Project is an excellent idea. Will directly serve the interests of the communities, and will assist restoration of harbor seals by allowing subsistence users to make better decisions about the resource.

Trustee Council Action

Fund.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96218	Ouzinkie Clam Restoration Project	ADFG	Ouzinkie Tribe			$0.0				$0.0			

Abstract

This project will begin to reestablish local clam populations for subsistence use in the Ouzinkie area. Clams were once a major subsistence food in the community of Ouzinkie, but local clam populations have decreased to low levels since the oil spill. Additionally, due to food safety concerns, clams no longer contribute to this community's subsistence harvest.

Chief Scientist's Comments

Duplicates 96131; consider as part of 96131.

Trustee Council Action

Do not fund as separate project. Objectives are already included in 96131.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96220	Eastern PWS Wildstock Salmon Habitat Restoration	USFS	Eyak Nat Vill	$77.2	$85.1	$85.1	$115.0	$12.0	$0.0	$212.1	1st yr. 3 yr. project	*$85.1*	

Abstract

This project will replace lost subsistence services resulting from the oil spill by increasing wild salmon production in eastern Prince William Sound. Instream fisheries habitat improvement techniques, primarily the installation of log structures, will be employed by local subsistence users to increase the capability of selected streams to produce additional salmon.

Chief Scientist's Comments

Good community involvement. Compatible with Trustee Council guidelines on fish supplementation. Excellent technically.

Trustee Council Action

Fund, although the specific funding mechanism needs to be resolved. The project proposal was submitted by a private entity who would like to do the work. However, the project may be awarded through a competitive process. This project will replace subsistence services lost due to the oil spill by increasing wild salmon production in PWS.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96222	Chenega Bay Salmon Restoration -- Anderson Creek	USFS	Chenega IRA	$17.1	$16.1	$16.1	$56.4	$0.0	$0.0	$72.5	1st yr. 2 yr. project	*$16.1*	

Abstract

This project will open up additional spawning areas for pink and coho salmon, and rearing habitat for coho salmon, in Anderson Creek through placement of a fish pass on a six-foot barrier falls located about one quarter of the way up the stream. Anderson Creek is located adjacent to Chenega Bay village. Additional salmon produced from increased spawning habitat will help replace lost subsistence opportunities in the village.

Chief Scientist's Comments

Excellent replacement project involving habitat alteration. Enhancement consists primarily of habitat improvement and appears to be relatively benign biologically, with low risk of failure. Recommend assessment of fish populations upstream of barrier.

Trustee Council Action

Defer decision until technical questions regarding assessment of fish populations are addressed.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96225	Port Graham Pink Salmon Subsistence Project	ADFG	Port Graham	$88.9	$95.3	$95.3	$83.1	$77.2	$161.5	$417.1	1st yr. 5 yr. project	*$95.3*	

Abstract

This project will help supply pink salmon for subsistence use in the Port Graham area during the broodstock development phase of the Port Graham hatchery. Because local runs of coho and sockeye salmon, which are the more traditional salmon subsistence resources, are at low levels, pink salmon are now heavily relied on for subsistence This project will help ensure that pink salmon remain available for subsistence use until the more traditional species are rejuvenated.

Chief Scientist's Comments

Potentially worthwhile project that should supplement pink salmon production for the benefit of subsistence users.

Trustee Council Action

Fund. Project is intended to increase the availability of pink salmon for subsistence use, replacing runs of coho and sockeye salmon depleted since the oil spill.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96226	Resurrection Bay Salmon Stock Enhancement	ADFG	Qutekcak Tribe	$45.0	$45.0	$0.0				$0.0			

Abstract

This project would enhance salmon resources and provide employment at the tribal level. By FY 98, the project should be self-supporting by providing a means of value-dded marketing to purchase salmon fry. The plan would entail the hiring of a processor/marketer, the purchase of a smoker, and the purchase of fresh salmon to be smoked and dried.

Chief Scientist's Comments

Insufficient technical content to evaluate this proposal.

Trustee Council Action

Do not fund. Project needs additional information. Because its primary goal appears to be economic development, not resource restoration, this project may not be appropriate for funding under the terms of the civil settlement.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96244	Community-Based Harbor Seal Management and Biological Sampling	ADFG	ANHSC	$70.0	$128.5	$128.5	$100.0	$85.0	$0.0	$313.5	3rd yr. 5 yr. project	*$128.5*	

Abstract

The goal of the project is to facilitate the involvement of subsistence users of harbor seals in the restoration of this species through two workshops, conducting biological sampling, collection and application of traditional knowledge, and development of a traditional knowledge database. A subcontract with the Alaska Native Harbor Seal Commission will contribute to developing a meaningful role for subsistence hunters in research and restoration activities.

Chief Scientist's Comments

This is a well integrated and technically feasible project.

Trustee Council Action

Fund. This project will follow through on recommendations from workshops supported through previous Trustee Council projects. Subsistence users will be involved in harbor seal restoration through collecting biological samples from subsistence-taken animals, and a traditional knowledge database will be developed and distributed.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96272	Chenega Chinook Release Program	ADFG	PWSAC	$42.1	$52.3	$52.3	$51.1	$0.0	$0.0	$103.4	3rd yr. 4 yr. project	*$52.3*	

Abstract

Chinook salmon incubated and reared at the Wally Noerenberg Hatchery will be released in Crab Bay, adjacent to the native community of Chenega. Adult salmon returning to the site of release will provide replacement resources and associated services injured by the oil spill. Two releases have taken place (1994 & 1995) as part of this multi-year project. Adult salmon will begin returning in 1996 and 1997, with larger numbers projected at nearly 1,000 adult fish returning in 1998 and thereafter.

Chief Scientist's Comments

Excellent proposal. Good match with Trustee Council's fish supplementation criteria. Good local involvement. Suggest continued Trustee Council funding through at least FY 97, pending project review in Fall 1996 to assess effectiveness.

Trustee Council Action

Fund through one full chinook salmon life cycle (at least FY 97). Review effectiveness in fall of 1996. Project will provide replacement resources for subsistence salmon injured by the oil spill. However, the proposers should develop a plan for a transition to non-Trustee fun

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96279	Resource Abnormalities Study	ADFG	ADFG	$71.7	$71.7	$0.0				$0.0			

Abstract

Many subsistence users in the oil spill area have reported abnormalities in resource species. There has been a loss of confidence among hunters and fishermen in their abilities to determine if their traditonal foods are safe to eat. This project would provide continued support for a project under which they can send samples of abnormal resources to be examined by biologists or pathologists and receive information back on the possible causes for the deformities.

Chief Scientist's Comments

Fair proposal. Work was originally to be closed out in 1995, and includes training that appears to be slated for funding in FY 96. Budget for ADFG personnel excessive in light of anticipated need for administrative support for this project.

Trustee Council Action

Do not fund. Continued communication about the safety of subsistence resources will be provided through 96052.

96428	Subsistence Restoration Planning and Implementation	ADFG	ADFG	$48.8	$48.8	$0.0				$0.0			

Abstract

This project would fund the final reporting for the two-year- long Subsistence Restoration Planning and Implementation Project. Reporting includes community meetings to convey project results to the participating communities and write up, revision, production and distribution of a final report to the Trustee Council.

Chief Scientist's Comments

FY 95 was 2nd year of 2-year planning effort. Issues addressed are important, but could be done in context of other proposals. 96428 overlaps 96052 substantially.

Trustee Council Action

Do not fund. Any further project planning will be conducted under 96052

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
Archaeological Resources				$3,737.9	$3,879.0	$500.7	$195.0	$195.0	$135.0	$1,025.7		*$500.7*	
PAG Recommendation: The PAG supports the budget as proposed by staff.													
96007A	Archaeological Index Site Monitoring	ADNR	ADNR	$146.5	$141.6	$141.6	$135.0	$145.0	$135.0	$556.6	2nd yr. 5 yr. project	*$141.6*	

Abstract

Monitoring of archaeological sites on public land injured by vandalism and oiling will concentrate on a sample of index sites in the three regions of the spill. Oiled sites will be tested for re-introduced oil. The 10-year project will end at five years if monitoring shows no continued injury.

Chief Scientist's Comments

This is an excellent proposal that represents the minimum that can be done in archaeological site monitoring. There is a need to continue consultations with Native groups.

Trustee Council Action

Fund. Proposer should continue and expand consultation with Nat. groups. The project provides continued monitoring of archaeological sites injured by vandalism and oiling. The ten year project will end at five years if monitoring shows no continued injury.

96007B	Site Specific Archaeological Restoration	USFS	USFS	$78.4	$78.4	$78.4	$0.0	$0.0	$0.0	$78.4	3rd yr. 3 yr. project	*$78.4*	

Abstract

Funding is requested for the final phase of the Forest Service's archaeological restoration at sites SEW-440 and SEW-488. Project 96007B is a continuation of projects 94007 and 95007B. Analysis and interpretation of data gathered during previous field work will result in a peer-reviewed final report, prepared and distributed according to Trustee Council procedures. This will complete the restoration process initially prescribed for these sites in 1991.

Chief Scientist's Comments

This is a close-out of a previously funded project. The budget appears reasonable. Continued consultations with Native groups are required by federal law.

Trustee Council Action

Fund. Proposer should continue consultation with Native groups. Project closes out previously funded work to restore archaeological sites in the spill area.

96149	Archaeological Site Stewardship	ADNR	ADNR	$74.4	$74.4	$74.4	$60.0	$50.0	$0.0	$184.4	1st yr. 3 yr. project	*$74.4*	

Abstract

The archaeological site stewardship program will provide training and coordination for a cadre of volunteers to monitor vandalized archaeological sites in the oil spill area beyond the ability of agency monitoring. Volunteer site stewards will protect damaged sites in Kachemak Bay, Uganik Bay, Uyak Bay and the Chignik area of the Alaska Peninsula. Further protection will come from increased local awareness of harm from site vandalism.

Chief Scientist's Comments

The concept was favorably reviewed. This project could serve as a useful model for protection of sites by local residents.

Trustee Council Action

Fund. The project will provide training and coordination for volunteers to monitor vandalized archaeological sites in the oil spill area. This effort is currently beyond the ability of agency monitoring. After FY 98, expenses will be assumed either by volunteer stewards or agency budgets.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96150	Expansion of Alutiiq Archaeological Repository	ADNR	Alutiiq HF	$535.0	$535.0	$0.0				$0.0			

Abstract

Many communities within the EVOS area have expressed interest in museums, but the cost of constructing such facilities in all these locations is prohibitive. The new Alutiiq Museum and Archaeological Repository, which is designed to hold collections from the Kodiak area, suggests expanding its existing facilities to hold collections from the remainder of the oil spill area. Selected artifacts would be displayed in other spill communities, where facilities or display areas could exist without the necessity of funding the staff and physical plant needed for large collections.

Chief Scientist's Comments

Needs to be considered in regional context before there is justification for expansion of this facility.

Trustee Council Action

Do not fund at this time. Proposal should be addressed through the planning effort in Project 96154.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96152	Community Museum, Repository, Archaeological, Site Stewardship, Co-Management Training & Human Resource Development Project	DOI	Chugach OSIR	$190.3	$190.3	$0.0				$0.0			

Abstract

This project would provide training and career development for 14-21 local residents or 2-3 participants from each Chugach Oil Spill Impacted Region community engaged in the development of a cultural center, or a subsistence restoration, site stewardship, and/or resource co-management facility, or attendant local service enterprise. Provision for training personnel is a prerequisite to local contracting assumption under P.L. 638 and attendant Federal regulations.

Chief Scientist's Comments

This proposal lacks clear technical details relating to the need for the work, how the goals will be accomplished, and the qualifications of those who will do the training. This could be considered if these points are addressed in another proposal. It is also not clear where the resources for sustained support of the suggested facilities will come from.

Trustee Council Action

Do not fund until significant questions are answered and comprehensive planning is completed.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96153	Community Cultural Centers, Repositories and Subsistence Restoration Facilities - Comprehensive Design, Engineering, Financing, and Construction Development Project	ADEC	Chugach OSIR	$2,588.3	$2,588.3	$0.0				$0.0			

Abstract

This project would provide a consolidated, coordinated and cost-effective approach to the progressive development, financing, and construction of local community and region-wide service facilities. Completed construction of such facilities, scaled to the local needs and capacity of each community, is considered fundamental to achieving and maintaining the region-wide long-term restoration of injured resources, subsistence services, and assuring provision for local and regional repository and site stewardship services.

Chief Scientist's Comments

This proposal does not outline the needs of each community in relation to the restoration program. With an adequate "scoping/project" feasibility assessment, there may be reason to proceed wih particular aspects of the plan in the future. Annual maintenance costs of repositories/museums must be considered in future proposals.

Trustee Council Action

Do not fund until significant questions are answered and comprehensive planning is completed.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96154	Comprehensive Community Plan for Restoration of Archaeological Resources in PWS and Lower Cook Inlet	USFS	Chugach HF	$125.0	$271.0	$206.3				$206.3	1st yr. 1 yr. project	*$206.3*	

Abstract

This project would provide coordinated and cost-effective approach to the provision and delivery of technical assistance planning services to each of the Chugach Oil Spill Impacted Region communities engaged in the development of a cultural center or subsistence restoration facility. The project is designed to facilitate a region-wide effort, coordinate and provide for the various technical service elements associated with and essential to the planning and development of community cultural centers or subsistence restoration facilities and their attendant long-term programs.

Chief Scientist's Comments

A well presented and complete proposal for local restoration of archaeological resources affected by the spill, concentrating on storage and display of artifacts in the spill area. I recommend this planning effort.

Trustee Council Action

Fund. Project description has been revised to reflect a comprehensive community planning effort.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96219	Ouzinkie Archeological Culture Center Project	ADEC	Ouzinkie Tribe			$0.0				$0.0			

Abstract

The Ouzinkie Archeological Culture Center will preserve and protect artifacts and the associated data that would otherwise be lost to vandals, looters and erosion or that have been recovered from looters and will preserve local cultural resources and traditional Native culture. This facility will also provide an opportunity for neighboring communities to participate in mini-conferences focusing on issues such as archeological history and the effects of the *Exxon Valdez* oil spill on declining subsistence resources, life skills and native culture.

Chief Scientist's Comments

This project to build an Ouzinkie Cultural Center needs to be better coordinated with region-wide efforts and with the existing Alutiiq Cultural Center.

Trustee Council Action

Do not fund. Proposal should be coordinated with the existing Alutiiq Cultural Center.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
Reducing Marine Pollution				$164.6	$163.3	$28.3				$28.3		*$28.3*	
PAG Recommendation: Approve this cluster for funding as recommended by the Executive Director.													
96091	Monitoring for Current and Potential Environmental Impacts of Oil Industry Activities in Cook Inlet	ADEC	Cook Inl RCAC	$135.0	$135.0	$0.0				$0.0			

Abstract

This proposal requests assistance in funding the Cook Inlet Environmental Monitoring Study. For two years, Cook Inlet RCAC has devoted its entire environmental research budget as sole supporter of this critical program. Goals of the program are: 1) establishing baseline hydrocarbon and biological data; 2) evaluating potential hydrocarbon accumulation in Cook Inlet sediments; and 3) evaluating potential environmental impacts of crude oil production and transportation in the Inlet.

Chief Scientist's Comments

Link to EVOS is weak; no work in areas that were really oiled, but monitoring sites are in spill zone. Insufficient detail for full evaluation. Focus is on gathering environmental baseline data, as opposed to actively reducing marine pollution.

Trustee Council Action

Do not fund. Proposal is not appropriate for EVOS civil settlement funds. It would monitor existing industrial activity, only peripherally related to recovery from EVOS, and prepare for future accidents. Neither of these is allowable under the civil settlement.

96115	Sound Waste Management Plan	ADEC	PWS Econ DC	$29.6	$28.3	$28.3				$28.3	2nd yr. 2 yr. project	*$28.3*	

Abstract

The Sound Waste Management Plan is a comprehensive plan to identify and remove the major sources of marine pollution and solid waste in PWS that may be affecting recovery of resources and services injured by the Exxon Valdez Oil Spill. This request completes the first phase -- planning begun in FY 95. The following phases of the plan will be to implement these solutions using funds from a variety of sources, possibly including the Trustee Council.

Chief Scientist's Comments

Prior work won't come to fruition if these final funds are not supplied in 1996. In theory, this project could speed recovery of injured species but those linkages are not clear. Future funding requests need close scrutiny.

Trustee Council Action

Fund. Project completes comprehensive planning for PWS communities to determine appropriate strategies for minimizing marine pollution, some of which may be affecting recovery of injured resources and services.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
Habitat Improvements				$1,077.1	$963.3	$766.5	$800.0	$600.0	$0.0	$2,166.5		*$560.6*	*$205.9*
PAG Recommendation: Regarding 96058, actively seek landowner participation. If none forthcoming, look at reducing this project. Regarding 96141, do not fund. State managers should work with other public and private operators to obtain needed data. Regarding 96176, do not fund. Regarding 96180, staff should examine expectations of this project relative to other organizations' efforts on the Kenai River.													
96058	Landowner Assistance Project	USFS	USFS	$205.9	$205.9	$205.9	$0.0	$0.0	$0.0	$205.9	2nd yr. 2 yr. project		*$205.9*

Abstract

Landowners in the oil spill area have expressed an interest in receiving assistance and advice on how to do a better job of protecting and/or enhancing habitat during resource development activities. Impacts often occur because landowners and development contractors lack an awareness of resource sensitivities during pre-project planning. The project, on an as needed basis, will attempt to make development and restoration objectives compatible so that land use activities do not impede natural recovery.

Chief Scientist's Comments

The concept of providing assistance to private landowners who want to minimize further impacts on spill-injured resources is good. However, I need more information about the results of current ('95) efforts and what is proposed in '96. My impression is that the initial response to the offer of landowner assistance in '95 is weak.

Trustee Council Action

Defer decision until consideration of results of FY 95 effort. Proj would continue effort begun in FY 95 to assist private landowners in protecting habitat during resource development activities.

96141	Afognak Island State Park - Habitat Restoration Survey	ADNR	ADNR	$45.0	$45.0	$0.0	$0.0	$0.0	$0.0	$0.0	1st yr. 1 yr. project		

Abstract

The objective of this project is to recommend ways to restore habitat in logged areas and along logging roads in Afognak Island State Park. The park was established in 1994 on land (Seal Bay and Tonki Cape parcels) purchased by the Trustee Council. A private contractor would conduct a regeneration survey that would document the density of seedlings that have returned to the 1200 acres that have been logged, and recommend ways to improve habitat (e.g., tree planting or thinning). The contractor would also recommend cost-effective ways to improve habitat along the 12 miles of logging roads within the park.

Chief Scientist's Comments

This is a technically sound proposal, which appears to have taken into account previous peer review comments. My only concern is that most of the needed restoration actions may not take place for 25 years, and we have no guarantee that in the year 2020 someone responsible for making management decisions at Afognak State Park will have read a survey report from 1996.

Trustee Council Action

Do not fund because of lack of support by the PAG and others. Not a priority for funding.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96176	Restoration of Essential Wetland Habitat at San Juan Bay on Montague Island	USFS	USFS	$67.5	$67.5	$0.0				$0.0	1st yr. 6 yr project		

Abstract

Project has the potential to create wetland habitats used by waterfowl and anadromous fish impacted by the oil spill. Study in FY 96 will determine project feasibility from hydrologic, soils, geomorphology, fisheries, wildlife and engineering perspectives. Detailed project plan will be developed if findings warrant. Environmental analysis will be conducted in FY 97. If project is implemented, succession will be reversed in the uplifted lake at San Juan Bay on Montague Island. Flooding of the uplifted area will maintain the wetland component. Pools/ponds will be created in riparian and floodplain areas to restore associated aquatic vegetation.

Chief Scientist's Comments

This is a feasibility study to restore freshwater wetlands on Montague Island that were altered by the 1964 earthquake. Although this project is proposed as a replacement for wetlands injured by the oil spill, the link to specific injured species is not clear. I need additional justification about the link to injury, as well as more information about what methods, degree of manipulation, and cost might be required to restore these wetlands.

Trustee Council Action

Do not fund. No additional information was provided linking this project to species injured by the spill, and many technical questions are unresolved.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96178	Second Growth Forest Habitat Enhancement for Injured Wildlife Species	USFS	USFS	$84.3	$84.3	$0.0				$0.0			

Abstract

The PWS area has several watersheds on National Forest System lands where timber harvest occurred in the early 1970s. These were done without an understanding of optimum stand structure for wildlife populations. This project has the potential to improve habitat for river otter, marbled murrelet, harlequin duck and bald eagle by accelerating succession and developing forest stand structure beneficial to wildlife species faster than natural forest succession. Habitat for old-growth dependent species such as river otter, marbled murrelet, harlequin duck, and bald eagle, whose populations were proven to be damaged by the 1989 oil spill, can be improved with this project.

Chief Scientist's Comments

The proposers seem to have a good understanding of understory characteristics in relation to forest types and management, but they have not presented a persuasive case that enhancing forest growth through pre-commercial thinning will demonstrably benefit river otters, harlequin ducks, marbled murrelets, and bald eagles. Most of the technical references cited concern deer. The link to restoration is weak, and I cannot recommend funding at this time.

Trustee Council Action

Do not fund. Link to restoration is weak.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
96180	Kenai Habitat Restoration & Recreation Enhancement Project	ADNR	ADNR	$674.4	$560.6	$560.6	$800.0	$600.0	$0.0	$1,960.6	1st yr. 3 yr. project	*$560.6*	

Abstract

Adverse impacts to the banks of the Kenai River total approximately 19 miles of the river's 166 mile shoreline. Included in this total are 5.4 river miles of degraded shoreline on public land. Riparian habitats have been impacted by trampling, vegetation loss and structural development. This riparian zone provides important habitat for pink salmon, sockeye salmon and Dolly Varden, species injured by the *Exxon Valdez* oil spill. The project's objectives are to restore injured fish habitat, protect fish and wildlife habitat, enhance and direct recreation and preserve the values and biophysical functions that the riparian habitat contributes to the watershed.

Chief Scientist's Comments

This is a well presented proposal, and the supplementary information provided helps to clarify the relationship to work that is being carried out with funds provided from the *Exxon Valdez* criminal settlement and other sources. This is a strong project aimed at the direct restoration of habitats that are important to the recovery of sockeye and other fish species of commercial and recreational importance.

Trustee Council Action

Fund. This project will aid restoration of habitat for the benefit of sockeye salmon and other fish species of commercial and recreational importance. Some questions remain about specific use of Trustee funds relative to other sources of state and federal support. Further information will be provided prior to 8/25/95.

Information Support	$0.0	$0.0

96155	Prince William Sound Information Service	ADNR	Fairweather	$0.0	$0.0

Abstract

The proposed Fairweather integrated information system is designed to accept, process and store scientific and other information from studies and environmental data collection programs from PWS and then allow easy access for manipulation and display of the data. Basic information from PWS studies will be converted to a common data format and stored on computer disk accessible to all researchers, government officials and other interested parties. Users would have a variety of access and display options.

Chief Scientist's Comments

Chief Scientist did not review proposal.

Trustee Council Action

Do not fund. Proposal duplicates work ongoing under 96100 begun under 95089.

Proj. No.	Title	Lead Agency	Proposer	FY 96 Request	FY 96 Revised Request	FY 96 Total Approved/ Deferred	FY97 Estimate	FY 98 Estimate	FY 99 to end Estimate	Total FY 96 to end Estimate	Project Duration	*Approved 8/25/95*	*Deferred Decision to December*
Research Facilities				$3,000.0	$3,000.0	$0.0				$0.0			
96151	Expansion of the Prince William Sound Science Center/Oil Spill Recovery Institute	NOAA	NOAA	$3,000.0	$3,000.0	$0.0				$0.0			

Abstract

This project addresses the need for basic marine research infrastructure important to the long-term restoration effort in PWS. It will expand currently overcrowded research facilities and provide new capacity for research and monitoring of ocean processes, marine plankton and nekton, and interrelationships between physics and the biology of the region. The laboratories will emphasize remote sampling (underwater acoustics and optics), data communication, visualization and numerical modeling.

Chief Scientist's Comments

Chief Scientist did not review proposal.

Trustee Council Action

Do not fund. Proposal incomplete. Planning money already obtained from alternate funding source.

Summary of Trustee Council Action, 8/25/95
FY 96 Work Plan

Draft

Resource/Service Cluster	Approved in FY 95	Revised FY 96 Request	Recommendation: Approve and Defer						
			FY 96	FY 97	FY 98	FY 99 to End	FY 96 to End	Approved 8/25/95	Defer
Pink Salmon	$2,543.5	$3,469.6	$3,242.3	$3,325.3	$2,558.8	$2,056.8	$11,183.2	$1,284.6	$1,957.7
Herring	$2,103.5	$1,432.2	$1,432.2	$1,154.9	$1,013.5	$1,169.2	$4,769.8	$787.1	$645.1
Sound Ecosystem Assessment (SEA)	$4,612.8	$5,154.8	$4,525.7	$3,600.0	$2,600.0		$10,725.7	$4,525.7	$0.0
SEA Program -- Related Projects	$0.0	$375.2	$112.7	$85.0	$85.0	$170.0	$467.7	$0.0	$112.7
Sockeye Salmon Program	$1,569.7	$2,198.0	$1,765.3	$427.0	$75.0	$150.0	$2,417.3	$771.0	$994.3
Cutthroat and Dolly Varden Trout	$134.8	$428.4	$240.4	$227.7	$127.7	$26.4	$622.2	$200.0	$40.4
Marine Mammal Program	$913.2	$1,099.5	$819.0	$687.3	$275.1	$25.0	$1,809.4	$792.6	$26.4
Nearshore Ecosystem	$3,112.4	$6,426.0	$3,596.6	$2,470.4	$2,459.4	$1,340.0	$9,816.4	$2,583.4	$1,013.2
Seabird/Forage Fish Ecoystem Pjct	$1,262.9	$1,982.6	$1,982.6	$1,964.0	$1,964.0	$2,200.0	$8,110.6	$250.7	$1,731.9
Seabird/Forage Fish -- Related	$617.9	$1,419.2	$795.6	$321.6	$103.9	$458.5	$1,664.6	$507.6	$288.0
Subsistence	$1,006.9	$2,594.0	$1,564.6	$1,404.3	$1,108.8	$1,594.8	$5,672.5	$878.4	$686.2
Archaeological Resources	$457.7	$3,880.3	$500.7	$195.0	$195.0	$135.0	$1,024.4	$500.7	$0.0
Reducing Marine Pollution	$516.7	$163.3	$28.3				$28.3	$28.3	$0.0
Habitat Improvements	$286.6	$963.3	$766.5	$800.0	$600.0	$0.0	$2,166.5	$560.6	$205.9
Information Support	$0.0	$0.0	$0.0				$0.0	$0.0	$0.0
Research Facilities	$0.0	$3,000.0	$0.0				$0.0	$0.0	$0.0
Total: Monitoring, Research, and General Restoration	**$19,138.6**	**$34,586.4**	**$21,372.5**	**$16,662.5**	**$13,166.2**	**$9,325.7**	**$60,478.6**	**$13,670.7**	**$7,701.8**
Public Information, Science Management, and Administration	$4,208.9	$3,439.6	$3,439.6	$3,200.0	$2,800.0	$7,200.0	16.625.1	$3,439.6	$0.0
Habitat Protection/Acquisition Support	$1,111.8	$1,193.0	$1,193.0	$170.0	$115.0	$115.0	$1,241.8	$1,193.0	$0.0
Restoration Reserve	$12,000.0	$12,000.0	$12,000.0	$12,000.0	$12,000.0	$12,000.0	$84,000.0	$12,000.0	$0.0
Total, All Activities	**$36,459.3**	**$51,219.0**	**$38,005.1**	**$32,032.5**	**$28,081.2**	**$28,640.7**	**$145,720.4**	**$30,303.3**	**$7,701.8**